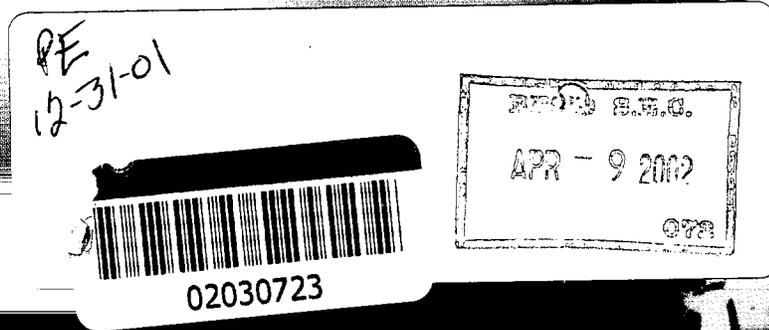


# Advanced Energy Industries, Inc.

2001 annual report



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FINANCIAL

momentum

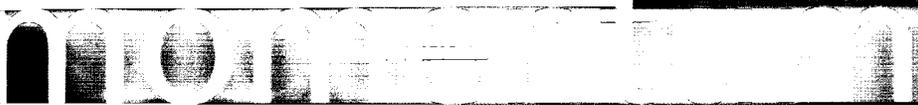
As never before, Advanced Energy is becoming the go-to source for sophisticated power systems. At AE, leadership **inspires** and **accelerates** our **increase** customers

**Transition faster** we must more

used in storage place and

growing momentum effecting change, driving forward, **increasing velocity...**

**Today, AE is the force beyond power.**



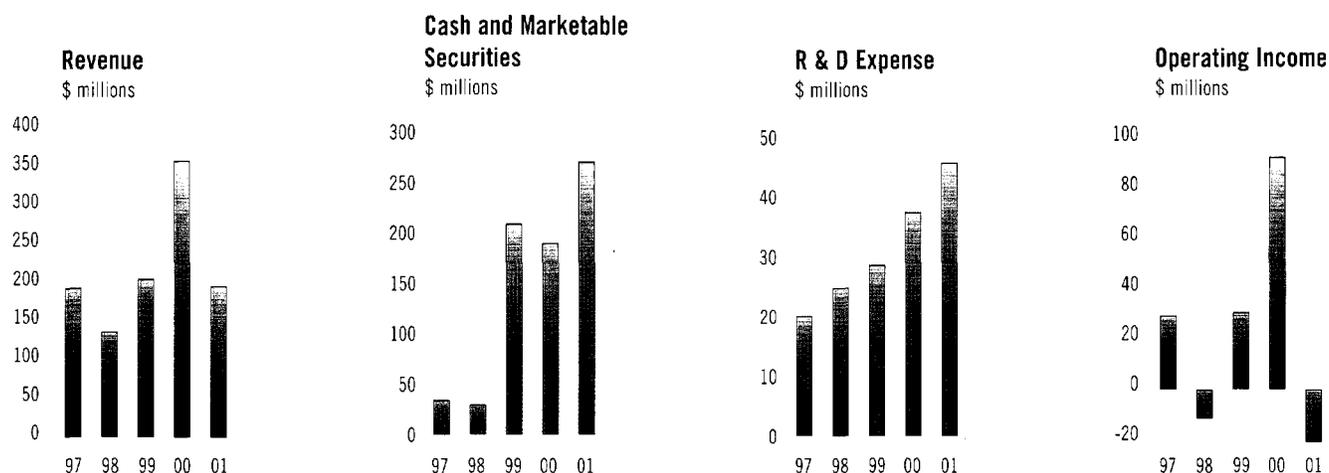
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# financial highlights

*In thousands except per share data*

Fiscal year ended	2001	2000	1999	1998	1997
Net sales	\$193,600	\$359,782	\$202,849	\$134,019	\$188,339
Gross profit	64,548*	176,453	92,202	40,019	71,656
Operating expenses	90,457*	85,670*	62,876	52,142*	44,109*
(Loss) income from operations	(25,909)*	90,783*	29,326	(12,123)*	27,547*
Net (loss) income before extraordinary item	(16,814)*	60,888*	19,066	(8,360)*	17,685*
Basic (loss) earnings per share from continuing operations	(0.53)*	1.94*	0.64	(0.29)*	0.67*
Diluted (loss) earnings per share from continuing operations	(0.53)*	1.88*	0.62	(0.29)*	0.65*
Cash and marketable securities	271,978	189,527	207,483	28,714	32,551
Working capital	350,443	277,154	257,484	63,225	77,188
Total assets	450,195	365,835	325,433	107,736	136,545
Long-term debt including short-term portion	207,730	83,980	139,012	1,603	8,784
Stockholders' equity	214,345	238,798	156,989	92,163	99,969
Basic weighted-average common shares outstanding	31,712	31,336	29,706	29,007	26,278
Diluted weighted-average common shares outstanding	31,712	32,425	30,934	29,007	27,057

\*Excludes one-time charges and credits



## Same Information, Different Distribution

Among the many cost containment measures we had to consider this year was whether to limit the pages devoted to narrative in the print version of our annual report. In light of other cutbacks, that seemed the responsible thing to do. However, the entire narrative—including more charts and graphs as well as product and company information—can be found on our Web site at: [www.advanced-energy.com](http://www.advanced-energy.com).

Please visit us there to get the rest of the story.

# Imagine this

**You're ascending a steep grade—  
faster than you've ever risen before.  
There seems no end in sight.  
Yet suddenly, you reach a crest.  
And out there—ahead of you—  
a breathtaking vertical drop.**

**Look familiar?** It does to us. In fact, it looks a whole lot like a graph of sales and earnings for the years 2000 and 2001. That crest you see? That was December 2000.

Welcome aboard the ceaseless roller coaster we call the semiconductor equipment industry—where the ramps seem to come steeper, faster, and closer together. Where we've learned to ride the ups and downs with equal tenacity. And where we've found that it's from a decline that we build momentum . . . just as it's from a recession that the best companies emerge stronger than before.

**Year 2001 results.** But first, there's that downhill run. Net sales in 2001 were \$193.6 million compared with \$359.8 million in 2000—a 46% decrease. Our net loss this year was \$31.4 million, or \$0.99 per diluted share, compared with a profit of \$68 million, or \$2.10 per diluted share, in 2000. Gross profit fell to \$57.4 million from \$176.5 million. Gross margin was 30% in 2001 compared with 49%, in 2000.

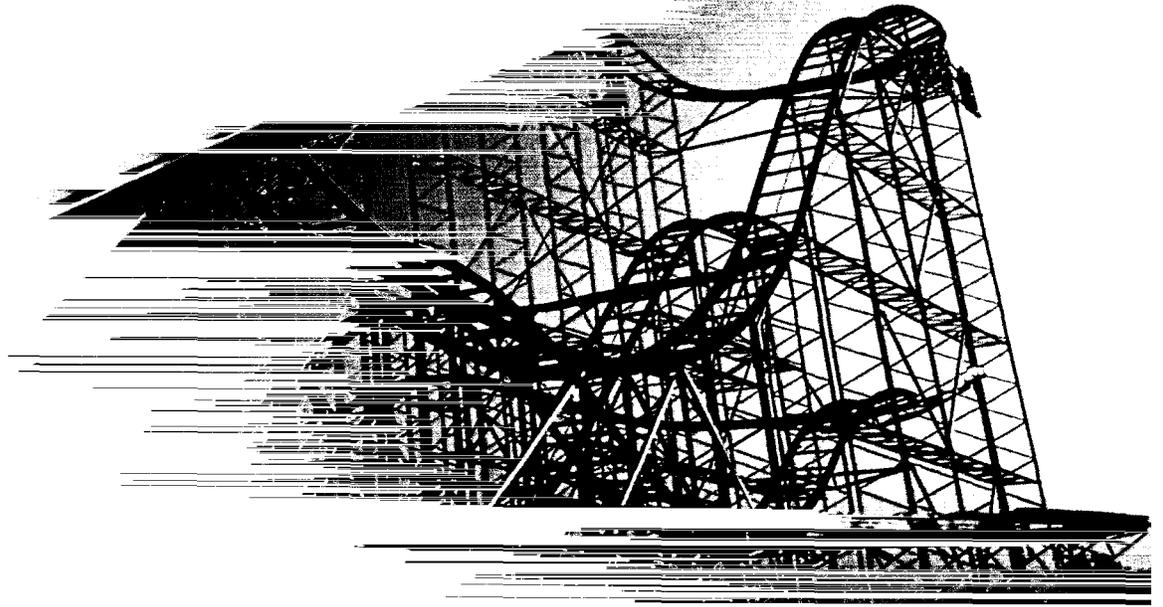
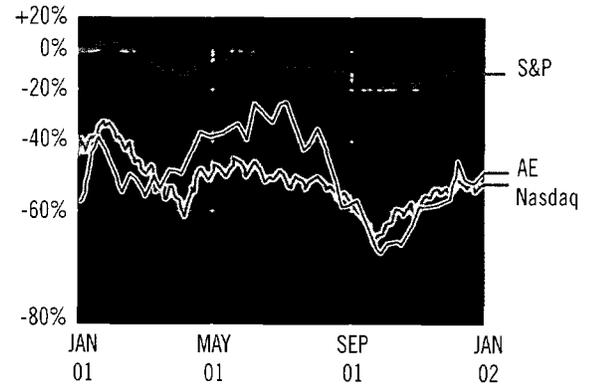
We ended the year with \$272 million of cash and marketable securities, \$350 million of working capital, \$450 million of total assets, and \$214 million of stockholders' equity.



At AE, we adhere to a conservative fiscal strategy that includes maintaining a strong balance sheet to meet whatever opportunities—or crises—come along. In August we issued convertible notes and realized a net amount of \$121.25 million. We wanted the resources to act quickly on any strategically attractive acquisitions, and we wanted the flexibility of a strong cash position if the down cycle continued for a long time. It was a good decision.

**Year in review.** This year was all about decisions. Tough ones. When you're hurtling downhill at the front of a roller coaster, you can do the cowardly thing and close your eyes; you can do the foolish thing and just let go; or you can do the smart thing: brace for the bottom, lean into the curves, and stay on track for the upturn. We did the smart thing.

## Stock Price 2001



First our executives, later our management, and then all employees took pay cuts proportionate to their pay levels. We instituted shutdown days. And we were forced to reduce headcount. Through three separate layoffs and some attrition, we lost about 400 people. However, we also stepped up communications with our employees to help ensure that the layoffs were no surprise—but in fact, a last resort. Good relations mean that when the upturn comes, we have a better chance to attract and retain key people.

We made it clear that every penny counts. We eliminated all but customer-critical travel, scrutinized every requisition, and challenged every employee to find cost-saving measures. Our financial fundamentals training classes equipped employees with the skills to identify over \$1 million in savings.

We accelerated efforts at streamlining our infrastructure. We consolidated operations where we could,

further integrating and assimilating acquired resources where opportunistic or redundant. And we developed even smarter ways for working with our suppliers.

Still, we never wavered in our commitment to technical innovation, technological leadership, product quality, and customer service. We stayed on track by retaining a strong talent pool. By earning design wins. By extending the breadth and depth of our market share—especially in the 300mm wafer and thermal management sectors. And by remaining savvy and aggressive. At year's end, we initiated the crucial acquisition of Aera, which significantly increases our leverage in the mass flow control market and our visibility worldwide. The impact will be momentous. The effect will be *momentum*.

At AE, we build a lot of our momentum by being flexible, using foresight, and having fun. The fun is in the people—our customers and our employees.

**Flexibility.** During cycles when we're speeding up ramp, all our time and attention focuses on customer service, production, and shipping. On the down slope, we find more energy for strategy and process. This year we had a long slope to ride; we accomplished a lot.

We continued to move forward our strategy of convergent technologies—expanding our capabilities beyond process power. Our approach has always been to ask customers "What do you want to have happen" not "What do you want this product to do." But today, we have the technology and resources to offer far more powerful results. With each engineering project, with each design win, we're becoming a larger proportion of our customers' structures, adding value, gaining leverage, and assuming scale.

We decentralized by organizing into strategic product divisions based on product families to provide more direct channels for working with customers and meeting their needs. It gives us better insight into product lifecycles. And it helps us better manage costs, product complexity, and diversification.

We also identified opportunities for outsourcing our mature product lines to manufacturers who can maintain quality and reduce our costs so that we can devote attention to our new and developing products.

At AE, momentum is more than just velocity. It's agility.

**Foresight.** On the down run, we kept our eyes wide open. We acquired Aera, completing the deal in January 2002. Headquartered in Japan, Aera is one of the world's leading suppliers of mass flow controllers to the semiconductor equipment industry. Aera aligns perfectly with our convergence strategy and our best-of-breed criteria to attract companies with the best technology or the largest market shares.

With its global presence and excellent reputation for quality, reliability, service, and support, Aera has the power to propel the Mach One mass flow controller—a breakthrough technology developed by another of

our acquisitions, EMCO—into widespread use. With Aera's end-user sales expertise and AE's OEM sales expertise, we can build significant market momentum.

Momentum is growing for 300mm applications, too—at a faster rate than 200mm. That's good news. Because this year our major OEMs awarded us a number of 300mm design wins on a number of platforms. More and more, we're invited into engineering partnerships with our customers. More and more, we win in bigger and bigger ways.

This whole, long year we continued our investment in R&D. It takes courage, because we know that it may affect shareholder value in the short term and contribute to operating losses. But—experience tells us that it enhances shareholder value in the long term. And we know it builds momentum.

At AE we imagine more. We prepare earlier. We execute better. And we rise ahead of our peers.

**Fun.** Uphill or downhill—our corporate culture depends heavily on keeping the business fun. In light of world events, it seems an even stronger imperative. We define it—and effect it—in lots of different ways: exciting challenges, professional growth and change, industry leadership, autonomy, success, camaraderie, and ultimately—customer delight. At AE, fun is our people, our progress, our power, and our passion.

And at AE, fun is that every time we go around this roller coaster, we rise to a higher level. At AE—we've got the momentum.

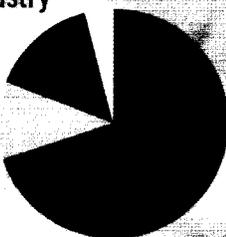
Along with the AE family and our board of directors, I thank you for taking the ride.



Douglas S. Schatz  
Chairman, CEO, and President

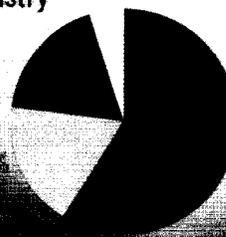
**2000  
Revenue Mix by Industry**

- Semiconductors 70%
- Advanced Product Applications 11%
- Flat Panel Display 8%
- Data Storage 7%
- Global Support 4%



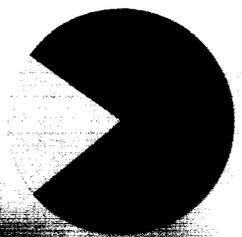
**2001  
Revenue Mix by Industry**

- Semiconductors 59%
- Advanced Product Applications 18%
- Flat Panel Display 11%
- Global Support 8%
- Data Storage 5%



**2001  
Markets by Geographic Area**

- USA/Canada 64%
- Asia Pacific 21%
- Europe 15%



**TRONIC**

## Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion contains, in addition to historical information, forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements that are other than historical information are forward-looking statements. For example, statements relating to our beliefs, expectations and plans are forward-looking statements, as are statements that certain actions, conditions or circumstances will continue. Forward-looking statements involve risks and uncertainties. As a result, our actual results may differ materially from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences or prove any forward-looking statements, by hindsight, to be overly optimistic or unachievable, include, but are not limited to the following:

- changes or slowdowns in general economic conditions or 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;
- changes in customers' inventory management practices;
- customer cancellations of previously placed orders and shipment delays;
- pricing competition from our competitors;
- costs incurred by responding to specific feature requests by customers;
- declines in macroeconomic conditions;
- timing and challenges of integrating recent and potential future acquisitions and strategic alliances; and
- our ability to attract and retain key personnel.

For a discussion of these and other factors that may impact our realization of our forward-looking statements, see Part I "Cautionary Statements – Risk Factors" in our Form 10-K for the year ended December 31, 2001.

### OVERVIEW

We design, manufacture and support a group of key sub-systems for vacuum process systems. Our primary sub-systems include complex power conversion and control systems. Our products also control the flow of gases into the process chambers and provide thermal control and sensing within the chamber. Our customers use our products in plasma-based thin-film processing equipment that is essential to the manufacture of semiconductors; compact disks, DVDs and other digital storage media; flat-panel computer and television screens; coatings for

architectural glass and optics; and a power supply for advanced technology computer workstations. We also sell spare parts and repair services worldwide through our customer service and technical support organization.

We provide solutions to a diversity of markets and geographic regions. However, we are focused on the semiconductor capital equipment industry, which accounted for approximately 59% of our sales in 2001, 70% in 2000 and 65% in 1999. In 1999 and 2000, the semiconductor capital equipment industry was at its historical peak for sales. Conversely, the year 2001 saw the steepest cutback in capital equipment purchases in industry history. These cyclical changes accounted for the 55% reduction in our sales to the semiconductor capital equipment industry between 2000 and 2001. However, during this period, we continued to achieve significant design wins on new equipment at manufacturers, which have resulted in solidifying relationships with our existing customers. We expect future sales to the semiconductor capital equipment industry to represent approximately 55% to 70% of our total revenue, depending upon the strength or weakness of the industry cycles.

In order to provide higher-value products, the semiconductor capital equipment industry is in the midst of significant consolidation. To help insure our continued growth and maintain our competitive advantage, we have done the following:

- In April 2000, we acquired Noah Holdings, Inc., which manufactures solid-state temperature control systems to control process temperatures during semiconductor manufacturing.
- In August 2000, we acquired Sekidenko, Inc., which supplies optical fiber thermometers to the semiconductor capital equipment industry.
- In January 2001, we acquired Engineering Measurements Company, or EMCO, which manufactures electronic and electromechanical precision instruments for measuring and controlling the flow of liquids, steam and gases for the semiconductor and other industries.
- In January 2002, we acquired Aera Japan Limited. Aera primarily supplies the semiconductor capital equipment industry with product lines that include digital mass flow controllers, pressure-based mass flow controllers, liquid mass flow controllers, ultrasonic liquid flow meters and liquid vapor delivery systems.

These product offerings complement our position as a global leader for complex power conversion and control systems, and process instruments, allowing us to provide best of breed components and develop systems to increase the precision and productivity of our customers'

## Management's Discussion and Analysis of Financial Condition and Results of Operations

products. It is also possible that we will acquire other companies or form strategic alliances as the industry consolidation continues.

We have taken strategic financing actions to enable us to pursue these investments. In November 1999, we completed two public offerings, one for \$135 million of convertible subordinated notes with a conversion price of \$49.53, due in 2006, and one for 1,000,000 shares of our common stock, at a price of \$39 per share. These offerings provided aggregate net proceeds of approximately \$167.1 million. In the fourth quarter of 2000, we repurchased \$53.4 million of these notes on the open market, leaving us with \$81.6 million outstanding. These purchases resulted in an after-tax net extraordinary gain of \$7.6 million. In August 2001, we completed an additional offering of convertible subordinated notes, providing aggregate net proceeds of approximately \$121.25 million with a conversion price of \$29.83, also due in 2006. These financings are discussed in more detail in the "Liquidity and Capital Resources" section.

We have also taken strategic marketing actions to provide for improved distribution channels. In December 1999, we completed formation of our wholly owned sales and service subsidiary in Taiwan. In October 2000, we opened a representative office in Shenzhen, China, to be responsible for market development, sales and technical support in China. We have also begun developing a sales force focused on selling to end users of our products.

Historically, our sales have primarily been to OEM manufacturers of semiconductor manufacturing equipment, but many of our newer products can be marketed directly to the end user for new or previously installed equipment. In some cases, the end user can direct the OEM to utilize our subsystems rather than our competitors.

### RESULTS OF OPERATIONS

#### SALES

Sales were \$193.6 million in 2001, \$359.8 million in 2000 and \$202.8 million in 1999, representing a decrease of 46% from 2000 to 2001 and an increase of 77% from 1999 to 2000. The changes in the level of our sales were primarily due to changes in demand for our systems from semiconductor capital equipment manufacturers, including many of our largest customers. The volatility in the semiconductor industry impacted overall investment activities, which led to semiconductor manufacturers purchasing less capital equipment.

While sales of semiconductor capital equipment have grown at a compounded annual growth rate of approximately 19% since 1960, the industry is highly cyclical and

is impacted by changes in the macroeconomic environment, changes in semiconductor supply and demand, and rapid technological advances in both semiconductor devices and wafer fabrication processes. Rapid growth and expansion during 1999 and part of 2000 was followed by the most sudden and pronounced slump in industry history, with year-to-year revenues falling approximately 40% throughout the industry from 2000 to 2001. Our sales over the last three years illustrate this cyclical nature.

Sales in 1999 and 2000 reflected the recovery in the semiconductor capital equipment industry from the severe downturn of 1998, and resulted from capacity expansion and increased investment in advanced technology by the semiconductor industry. This two-year recovery resulted in record sales for us, driven by sales to the semiconductor capital equipment industry. The decrease in sales in 2001 was due to a worldwide slowdown in demand for semiconductors, which resulted in a sudden and rapid decline in demand for semiconductor manufacturing equipment. Inventory buildups, slower than expected personal computer sales and slower global economic growth resulted in reduced capital investment by semiconductor manufacturers and their suppliers.

The following tables summarize annual net sales, and percentages of net sales, by customer type for each of the three years in the period ended December 31, 2001:

(In thousands)	Years Ended December 31,		
	2001	2000	1999
Semiconductor capital equipment	\$114,273	\$252,889	\$131,395
Data storage	10,043	24,751	21,823
Flat panel display	18,145	29,273	11,171
Advanced product applications	35,698	37,726	28,563
Customer service technical support	15,441	15,143	9,897
	<b>\$193,600</b>	<b>\$359,782</b>	<b>\$202,849</b>

	Years Ended December 31,		
	2001	2000	1999
Semiconductor capital equipment	59%	70%	65%
Data storage	5	7	11
Flat panel display	10	8	5
Advanced product applications	18	11	14
Customer service technical support	8	4	5
	<b>100%</b>	<b>100%</b>	<b>100%</b>

The following table summarizes annual percentage changes in net sales by customer type for us from 2000 to 2001 and from 1999 to 2000:

	2001 change from 2000	2000 change from 1999
Semiconductor capital equipment	(55)%	92%
Data storage	(59)%	13%
Flat panel display	(38)%	162%
Advanced product applications	(5)%	32%
Customer service technical support	2%	53%
Total sales	(46)%	77%

The following tables summarize annual net sales, and percentages of net sales, by geographic region for each of the three years in the period ended December 31, 2001:

(in thousands)	Years Ended December 31,		
	2001	2000	1999
United States and Canada	\$124,746	\$260,596	\$148,424
Europe	28,957	52,893	32,344
Asia Pacific	39,038	45,874	21,583
Rest of world	859	419	498
	\$193,600	\$359,782	\$202,849

	Years Ended December 31,		
	2001	2000	1999
United States and Canada	64%	72%	73%
Europe	15	15	16
Asia Pacific	21	13	11
Rest of world	-	-	-
	100%	100%	100%

#### GROSS MARGIN

Our gross margin was 29.7% in 2001, 49.0% in 2000 and 45.5% in 1999.

The major items affecting the reduction in our margin in 2001 were:

- The adverse impact of much lower sales on the absorption of higher year-over-year fixed overhead. Historically, the rapid changes in industry demand have resulted in significant increases in manufacturing capacity during upturns followed by severe underutilization of these facilities in subsequent downturns. As the semiconductor capital equipment market's expansion of 1999 and 2000 was forecasted to continue into 2001, we increased our manufacturing capacity in Fort Collins,

Colorado to meet this continued expected growth. This facility was completed in the first quarter of 2001 when the industry downturn was just beginning. While we understood that there was a risk of opening up a new facility after eight quarters of industry growth, the new facility was necessary to ensure our continued ability to meet demand and maintain our reputation as a leading supplier to the semiconductor capital equipment industry. This new facility also positions us to take advantage of the next up cycle in a much more efficient manner, which should have a positive impact on future operating results.

- The industry is moving to 300mm equipment and smaller line widths. These technology changes require new products that we have developed or are developing. Typical of products early in their life cycle and at low production levels, these products have lower margins than our established products. Margins on these products should improve over the next 12 months.
- We reduced our fixed overhead through headcount reductions in force of some of our manufacturing staff when we saw our level of sales decline in 2001, though we do retain certain knowledgeable employees with specific skill sets, to be ready for unexpected industry ramp-ups.
- Our cost of sales has also been adversely affected by periodic writedowns of excess and obsolete inventory, often exacerbated by industry cycles and recent warranty expenses in excess of historical rates related to certain products, which required substantial rework, repair, and in some cases, replacement.

Given the rapid change in technology, we monitor and forecast expected inventory needs based on our constantly changing sales forecast. Inventory is written down or written off when it becomes obsolete, generally because of engineering changes to a product or discontinuance of a product line, or when it is deemed excess. Charges for obsolete and excess inventory were \$6.4 million in 2001, \$654,000 in 2000 and \$1.5 million in 1999, which affected gross margins by 3.3%, 0.2% and 0.8% in these years. The amount of inventory written down in 2001 is primarily attributable to the severe decrease in product sales, which caused a larger than normal amount of inventory to become excess based on recent sales forecasts.

We provide warranty coverage for our systems ranging from 12 to 36 months, with the majority of our products ranging from 18 to 24 months, and estimate the anticipated costs of repairing our systems under such warranties based on the historical average costs of the repairs. We recognized charges for warranty expense of \$7.6 million in 2001, \$4.6 million in 2000 and \$3.1 million in 1999.

## Management's Discussion and Analysis of Financial Condition and Results of Operations

The assumptions we use to estimate warranty accruals are reevaluated periodically in light of actual experience and, when appropriate, the accruals are adjusted. Our determination of the appropriate level of warranty accrual is subjective, and based on estimates, and actual experience can be different than our expectations.

The improvement in gross margin from 1999 to 2000 was primarily a result of a more favorable absorption of manufacturing costs, which resulted from the higher sales base.

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 decline in average selling prices not offset by reduced costs could result in declines in our gross margins.

### RESEARCH AND DEVELOPMENT

We believe continued investment in the research and development of new systems is critical to our ability to serve new and existing markets, develop new products and improve existing product designs to achieve our vision of convergent technologies. We continue to invest heavily in new product development even during industry downturns, to be advantageously positioned for turn-around in demand for old and new products, which often occurs during sudden and unpredictable industry upturns. Since our inception, all of our research and development costs have been expensed as incurred.

Our research and development expenses were \$45.2 million in 2001, \$37.0 million in 2000 and \$28.3 million in 1999, representing an increase of 22% from 2000 to 2001 and 31% from 1999 to 2000. As a percentage of sales, research and development expenses increased from 10.2% in 2000 to 23.3% in 2001 because of the lower sales base, but decreased from 14.0% in 1999 to 10.2% in 2000 because of increased levels of revenue in 2000. The annual increases in expenditures from 1999 to 2001 are primarily due to increases in payroll, materials and supplies and depreciation of equipment used for new product development and partially due to the acquisition of EMCO in 2001.

### SALES AND MARKETING EXPENSES

As we continue our worldwide expansion, and expand our product offerings through acquisitions, our sales and marketing efforts have become increasingly complex. We continue to refine our sales and marketing functions as we acquire and integrate new companies. We have begun an effort to market directly to end users of our systems, in addition to our traditional marketing to manufacturers of semiconductor capital equipment and other industries.

Our sales and marketing expenses support domestic and international sales and marketing activities that include personnel, trade shows, advertising, and other selling and marketing activities.

Sales and marketing expenses were \$23.8 million in 2001, \$24.1 million in 2000 and \$18.3 million in 1999. This represents a 32% increase from 1999 to 2000, and essentially no change from 2000 to 2001. The increase in expenses from 1999 to 2000 was to support the sales growth during the 2000 upturn in the semiconductor capital equipment industry. As a percentage of sales, sales and marketing expenses increased from 6.7% to 12.3% in 2001 due to the lower sales base in 2001, but decreased from 9.0% in 1999 to 6.7% in 2000 because of the higher sales base in 2000, even while dollars spent increased.

### GENERAL AND ADMINISTRATIVE EXPENSES

Our general and administrative expenses support our worldwide corporate legal, patent, tax, financial, administrative, information systems and human resources functions in addition to our general management. General and administrative expenses were \$21.5 million in 2001, \$24.6 million in 2000 and \$16.2 million in 1999. The 12% decrease from 2000 to 2001 is primarily due to lower spending for payroll, primarily employee bonuses, which were eliminated in 2001 due to the decline in operating profitability. The 51% increase from 1999 to 2000 is primarily due to higher spending for payroll, including employee bonuses, and purchased services. As a percentage of sales, general and administrative expenses increased from 6.8% in 2000 to 11.1% in 2001 because of the lower sales base in 2001, and decreased from 8.0% in 1999 to 6.8% in 2000 because of the higher sales base in 2000. General and administrative expenses in 2001 also included approximately \$500,000 of legal costs in connection with patent infringement litigation.

### GOODWILL IMPAIRMENT

During the second quarter of 2001, we terminated the operations of our Tower Electronics, Inc. subsidiary and our Fourth State Technology, or FST, product line, due to significant softening in the projected demand for these products. Revenue contributed by Tower and FST operations for 2001, 2000 and 1999 represented less than five percent of our total revenue in each of these years. As a result of these actions, estimated related future cash flows no longer supported the carrying amounts of related goodwill, and we recorded goodwill impairment charges of \$5.4 million in 2001 related to Tower and FST.

## OTHER OPERATING EXPENSES

Beginning in April 2000, we made periodic advances to or investments in Symphony Systems, Inc., a privately held, early-stage developer of equipment productivity management software. In addition to the approximately \$8 million received from us as investments, advances and license payments, Symphony received investments of \$7 million from other parties. In 2000, we obtained an exclusive license, for which we paid \$1.5 million, to use Symphony's products in the semiconductor industry. In connection with certain of our 2001 advances, we obtained a security interest in all of Symphony's intellectual and proprietary property.

Beginning in the third quarter of 2001, and continuing through the end of the year, Symphony's financial situation began to deteriorate significantly, and we determined that due to its need for immediate liquidity, its declining business prospects (including the indefinite postponement of a significant order for its products from a major semiconductor equipment manufacturer) and other factors, the value of our investment in and advances to Symphony had substantially declined. Given the precarious financial condition of Symphony, we valued our investments in and advances to Symphony at December 31, 2001, at approximately \$1 million, which reflects our assessment of the value of the Symphony technology license, which has continuing value to us. The amount of the writedown related to Symphony was \$6.8 million, all of which was recorded in 2001 as an operating expense.

Since Symphony effectively ceased operations in February 2002, we have hired its key employees and we intend to purchase Symphony's remaining assets in a foreclosure, liquidation or bankruptcy sale in the near future. At no time did our percentage ownership in the voting stock of Symphony exceed approximately 1.7%, and we have never had the ability to exercise significant influence over Symphony.

## RESTRUCTURING AND MERGER COSTS AND ONE-TIME CREDIT

In April 2000, we acquired Noah in a pooling of interests under the previous rules of Accounting Principles Board (APB) Opinion No. 16. The merger involved the exchange of 687,000 shares of Advanced Energy common stock for the privately held common stock of Noah. As part of the business combination, we took a charge of \$2.3 million in the second quarter of 2000 for merger costs, which cannot be capitalized and which in certain cases were nondeductible for income tax purposes.

In July 2000, we announced the consolidation of our Tower facility in Fridley Minnesota, into our existing facility in Voorhees, New Jersey. We recorded a restructuring charge of \$1.0 million in the third quarter of 2000 related to the consolidation, which was completed during the fourth quarter of 2000.

In August 2000, we acquired Sekidenko in a merger that was accounted for as a pooling of interests. This merger involved the exchange of 2.1 million shares of Advanced Energy common stock for the privately held common stock of Sekidenko. As part of the business combination, we took a charge of \$2.3 million in the third quarter of 2000 for merger costs, which cannot be capitalized and which in certain cases were nondeductible for income tax purposes.

In July 2001, the Financial Accounting Standards Board issued SFAS No. 141, which requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001.

In the first quarter of 2001, we received a \$1.5 million settlement for recovery of legal expenses pertaining to a patent infringement suit in which we were the plaintiff.

During the second quarter of 2001, in response to the downturn in the semiconductor capital equipment industry, we implemented two reductions in force totaling approximately 135 regular employees and 90 temporary employees and recorded a charge of \$614,000 for restructuring and severance costs, including fringe benefits. We paid cash to the affected employees in this amount during the second quarter of 2001, and at December 31, 2001 the remaining liability was not significant.

During the fourth quarter of 2001, in response to the sustained downturn in the semiconductor capital equipment industry and global economy, we announced and implemented additional cost-reduction measures, and recorded a charge of \$2.5 million. Such measures included a reduction in force of 107 employees; phasing out our Austin, Texas manufacturing facility to begin outsourcing the assembly of certain DC power products; the transition of our Voorhees, New Jersey facility from a manufacturing site to a design center; and the closure of Noah's manufacturing and office facilities in San Jose, California, due to the transfer of Noah's manufacturing to Vancouver, Washington, to be co-located with Sekidenko. These costs included payments required under operating lease contracts and costs for writing down related leasehold improvements for facilities. At December 31, 2001, approximately \$1.3 million related to the fourth quarter of 2001 restructuring and severance actions was accrued as a current liability.

## Management's Discussion and Analysis of Financial Condition and Results of Operations

### OTHER (EXPENSE) INCOME

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

Interest income was approximately \$6.6 million in 2001, \$10.7 million in 2000 and \$2.2 million in 1999. Our interest income in 2001 was lower than in 2000 due to our use of cash and marketable securities to repurchase a portion of our 5.25% convertible subordinated notes in the fourth quarter of 2000 and because of our purchase of EMCO in January 2001. The lower interest income in 2001 was also due to the decline in interest rates throughout 2001 resulting from the Federal Reserve's lowering of interest rates. In 1999, interest income was earned primarily from earnings on investments made from the proceeds of our initial public offering in 1995 and our underwritten public offering in 1997. In November 1999, our cash and marketable securities increased substantially from the proceeds of additional offerings of convertible subordinated notes and common stock, resulting in higher interest income in 2000.

Interest expense consists principally of accruals of interest on our convertible subordinated notes, on borrowings under our bank credit and capital lease facilities and a state government loan, the latter of which has been repaid. Interest expense was approximately \$7.4 million in 2001, \$7.7 million in 2000 and \$1.4 million in 1999. The increase of interest expense from 1999 to 2000 was primarily due to interest on the convertible subordinated notes.

Our foreign subsidiaries' sales are primarily denominated in currencies other than the U.S. dollar. We recorded net foreign currency losses of \$235,000 in 2001 and \$196,000 in 2000, and a net foreign currency gain of \$1.5 million in 1999. The losses in 2000 and 2001 were due to a weakening of the exchange rate of the Japanese yen to the U.S. dollar, partially offset by the effect of our use of forward foreign exchange contracts. The gain in 1999 was primarily due to strengthening of the exchange rate of the Japanese yen to the U.S. dollar. Since 1997, we have entered into various forward foreign exchange contracts to mitigate currency fluctuations in the Japanese yen. We continue to evaluate various policies to minimize the effect of foreign currency fluctuations. At December 31, 2001, we had \$6.5 million of foreign currency forward contracts outstanding.

Miscellaneous expense items were \$1.0 million in 2001 and \$698,000 in 1999. Miscellaneous income of \$4.7 million in 2000 was primarily due to a \$4.8 million gain on a sale of an investment.

### (BENEFIT) PROVISION FOR INCOME TAXES

The income tax benefit of \$17.4 million for 2001 represented an effective rate of 36%. The income tax provision of \$36.8 million in 2000, which included \$4.6 million of provision for

an extraordinary item, represented an effective rate of 35%. The income tax provision of \$11.7 million for 1999 represented an effective rate of 38%. Changes in our relative earnings and the earnings of our foreign subsidiaries affect our consolidated effective tax rate. We adjust our income taxes periodically based upon the anticipated tax status of all foreign and domestic entities, and have adopted income tax planning strategies to reduce our worldwide income tax expense.

### EXTRAORDINARY GAIN

In the fourth quarter of 2000, we repurchased an aggregate of approximately \$53.4 million principal amount of our convertible subordinated notes in the open market, for a cost of approximately \$40.8 million. These purchases resulted in a pretax extraordinary gain of \$12.2 million, or \$7.6 million after tax, and reduced the level of our fixed cost interest expense until we acquired additional subordinated debt in the third quarter of 2001.

### SUMMARY RESULTS OF OPERATIONS

The following table summarizes certain data as a percentage of sales extracted from our statement of operations:

	Years Ended December 31,		
	2001	2000	1999
Sales	100.0%	100.0%	100.0%
Cost of sales	70.3	51.0	54.5
Gross margin	29.7	49.0	45.5
Operating expenses:			
Research and development	23.3	10.2	14.0
Sales and marketing	12.3	6.7	9.0
General and administrative	11.1	6.8	8.0
Goodwill impairment	2.8	-	-
Other impairments	3.6	-	-
Restructuring charges	1.6	0.3	-
Merger costs	-	1.3	-
Litigation recovery	(0.8)	-	-
Total operating expenses	53.9	25.3	31.0
(Loss) income from			
operations	(24.2)	23.7	14.5
Other (expense) income	(1.1)	2.1	0.7
Net (loss) income before income taxes, minority interest and extraordinary item	(25.3)	25.8	15.2
(Benefit) provision for income taxes	(9.0)	9.0	5.8
Minority interest in net (loss) income	(0.1)	-	-
Net (loss) income before extraordinary item	(16.2)	16.8	9.4
Extraordinary item (net of applicable taxes)	-	2.1	-
Net (loss) income	(16.2)%	18.9%	9.4%

## QUARTERLY RESULTS OF OPERATIONS

The following tables present unaudited quarterly results in dollars and as a percentage of sales for each of the eight quarters in the period ended December 31, 2001. We believe that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. The operating results for any quarter are not necessarily indicative of results for any subsequent period.

(In thousands, except per share data)	Quarters Ended							
	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000	Mar. 31, 2001	June 30, 2001	Sept. 30, 2001	Dec. 31, 2001
Sales	\$75,028	\$85,701	\$96,317	\$102,736	\$74,714	\$46,171	\$38,722	\$33,993
Cost of sales	38,361	43,338	49,492	52,138	43,491	38,390	27,686	26,601
Gross profit	36,667	42,363	46,825	50,598	31,223	7,781	11,036	7,392
Operating expenses:								
Research and development	8,113	8,504	9,711	10,668	12,389	11,040	10,967	10,755
Sales and marketing	5,867	5,373	6,232	6,629	6,629	5,963	5,694	5,498
General and administrative	5,639	5,810	6,748	6,376	6,174	5,645	4,817	4,886
Goodwill impairment	-	-	-	-	-	5,446	-	-
Other impairments	-	-	-	-	-	-	1,221	5,625
Restructuring charges	-	-	1,000	-	-	614	-	2,456
Merger costs	-	2,333	2,250	-	-	-	-	-
Litigation recovery	-	-	-	-	(1,500)	-	-	-
Total operating expenses	19,619	22,020	25,941	23,673	23,692	28,708	22,699	29,220
Income (loss) from operations	17,048	20,343	20,884	26,925	7,531	(20,927)	(11,663)	(21,828)
Other income (expense)	120	731	5,598	1,036	187	(70)	(711)	(1,484)
Net income (loss) before income taxes, minority interest and extraordinary item	17,168	21,074	26,482	27,961	7,718	(20,997)	(12,374)	(23,312)
Provision (benefit) for income taxes	5,947	8,023	10,195	8,076	2,689	(6,553)	(4,704)	(8,873)
Minority interest in net (loss) income	(17)	(67)	(2)	106	(65)	105	(188)	3
Net income (loss) before extraordinary item	11,238	13,118	16,289	19,779	5,094	(14,549)	(7,482)	(14,442)
Extraordinary item (net of income taxes)	-	-	-	7,610	-	-	-	-
Net income (loss)	\$11,238	\$13,118	\$16,289	\$27,389	\$ 5,094	\$(14,549)	\$( 7,482)	\$(14,442)
Basic earnings (loss) per share before extraordinary item	\$ 0.36	\$ 0.42	\$ 0.52	\$ 0.63	\$ 0.16	\$ (0.46)	\$ (0.24)	\$ (0.45)
Diluted earnings (loss) per share before extraordinary item	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.61	\$ 0.16	\$ (0.46)	\$ (0.24)	\$ (0.45)
Basic earnings per share from extraordinary item	\$ -	\$ -	\$ -	\$ 0.24	\$ -	\$ -	\$ -	\$ -
Diluted earnings per share from extraordinary item	\$ -	\$ -	\$ -	\$ 0.22	\$ -	\$ -	\$ -	\$ -
Basic earnings (loss) per share	\$ 0.36	\$ 0.42	\$ 0.52	\$ 0.87	\$ 0.16	\$ (0.46)	\$ (0.24)	\$ (0.45)
Diluted earnings (loss) per share	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.83	\$ 0.16	\$ (0.46)	\$ (0.24)	\$ (0.45)
Basic weighted-average common shares outstanding	31,161	31,314	31,339	31,517	31,547	31,698	31,784	31,821
Diluted weighted-average common shares outstanding	32,512	32,543	32,417	34,078 *	32,187	31,698	31,784	31,821

\* Includes dilution from subordinated notes

## Management's Discussion and Analysis of Financial Condition and Results of Operations

	Quarters Ended							
	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000	Mar. 31, 2001	June 30, 2001	Sept. 30, 2001	Dec. 31, 2001
Percentage of Sales:								
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales	51.1	50.7	51.4	50.7	58.2	83.1	71.5	78.3
Gross margin	48.9	49.3	48.6	49.3	41.8	16.9	28.5	21.7
Operating expenses:								
Research and development	10.8	9.9	10.0	10.4	16.6	23.9	28.3	31.6
Sales and marketing	7.9	6.2	6.5	6.5	8.9	12.9	14.7	16.2
General and administrative	7.5	6.8	7.0	6.2	8.3	12.2	12.4	14.4
Goodwill impairment	-	-	-	-	-	11.8	-	-
Other impairments	-	-	-	-	-	-	3.2	16.5
Restructuring charges	-	-	1.0	-	-	1.4	-	7.2
Merger costs	-	2.7	2.4	-	-	-	-	-
Litigation recovery	-	-	-	-	(2.1)	-	-	-
Total operating expenses	26.2	25.6	26.9	23.1	31.7	62.2	58.6	85.9
Income (loss) from operations	22.7	23.7	21.7	26.2	10.1	(45.3)	(30.1)	(64.2)
Other income (expense)	0.2	0.9	5.8	1.0	0.2	(0.2)	(1.9)	(4.4)
Net income (loss) before income taxes, minority interest and extraordinary item								
Provision (benefit) for income taxes	7.9	9.4	10.6	7.8	3.6	(14.2)	(12.2)	(26.1)
Minority interest in net (loss) income	-	(0.1)	-	0.1	(0.1)	0.2	(0.5)	-
Net income (loss) before extraordinary item								
Extraordinary item (net of income taxes)	-	-	-	7.4	-	-	-	-
Net income (loss)	15.0%	15.3%	16.9%	26.7%	6.8%	(31.5)%	(19.3)%	(42.5)%

Due to the cyclical nature of the semiconductor capital equipment industry, and the sudden changes resulting in severe downturns and upturns, we have experienced and expect to continue to experience significant fluctuations in our quarterly operating results. Our levels of operating expenditures are based, in part, on expectations of future revenues that such expenses support. 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 our revenues in a particular quarter, which include the risk factors listed above in the opening section of this management discussion and analysis.

Our quarterly operating results in 2000 and 2001 reflect the fluctuating demand for our products during this period, principally from manufacturers of semiconductor capital equipment, data storage equipment and flat panel displays, and our ability to adjust our manufacturing capacity to meet this demand. Sales to the semiconductor capital equipment industry increased each quarter throughout 2000 then decreased each quarter throughout 2001 when that industry shifted into a sudden and severe downturn. Data storage sales fluctuated significantly throughout

both years. Our revenue from all sectors is heavily influenced by general economic conditions in each of the industries we serve.

Our gross margin maintained a relatively consistent level in each of the quarters in 2000, at approximately 49%. We added new facilities in Fort Collins, Colorado in the first quarter of 2001 to increase our manufacturing capacity to continue meeting this expected growth, which substantially increased our fixed costs. Then, as we entered the sudden and steep decline in volume from the semiconductor capital equipment industry in that quarter, the combination of declining sales and higher fixed costs resulted in lower absorption of fixed overhead and greatly reduced our gross margins throughout 2001. In addition, the industry slowdown caused more inventory to be deemed excess or obsolete, and warranty costs associated with certain products in excess of historical experience also adversely affected margins, particularly in the second and fourth quarters of 2001.

Research and development, selling and marketing, and general and administrative expenses remained relatively stable throughout the eight quarters of 2000 and 2001,

though they generally increased in the second half of 2000. As a percentage of sales, operating expenses have generally declined during periods of rapid sales growth, when sales increased at a rate faster than our need or ability to add personnel and facilities to support the growth. These operating expenses as a percentage of sales have generally increased during periods of flat or decreased sales, when our infrastructure is retained to support strong customer relationships and anticipated future growth.

Other (expense) income consists primarily of interest income and expense, foreign currency gains and losses, and miscellaneous gains, losses, income and expense items. Changes in interest rates and changes in our level of investments in marketable securities drive the quarterly fluctuations in our interest income. Because the interest rates we pay on our long-term debt are fixed, our levels of such debt determine our quarterly interest expense, which decrease when we repurchase such debt and which increase when we make new offerings. Changes in exchange rates and our ability to manage foreign currency exposure determine the quarterly fluctuations in our foreign currency gains and losses. Miscellaneous expense items vary according to the frequency of non-operating events. The largest single item in this category was in the third quarter of 2000 when we recorded a \$4.8 million gain on a sale of an investment.

Our effective rate for income tax provision fluctuated on a quarterly basis throughout 2000 and 2001, varying from 29% to 39%. The fluctuations were due to the timing of certain nondeductible expenses including merger costs, and due to initiatives we implemented in 2000 to reduce our overall rate.

## LIQUIDITY AND CAPITAL RESOURCES

Our financing strategy has been to raise capital from debt and equity markets to provide liquidity to enable our investments in acquisitions and alliances, which support our strategic vision of being a single source provider of integrated solutions. We maintain substantial levels of cash and marketable securities to have funding readily available for such investment opportunities when they arise. Since 1995, to better enable such strategic investments, we have attained this liquidity with proceeds from underwritten public offerings of our common stock and, since 1999, offerings of convertible subordinated debt.

Operating activities generated cash of \$7.9 million in 2001, primarily reflecting the impact on net loss of non-cash items and impairments. As part of this net cash provided of \$7.9 million, decreases in accounts receivable and accounts payable provided cash of \$39.6 million.

Operating activities provided cash of \$34.7 million in

2000, primarily as a result of net income exclusive of non-cash charges and credits, reduced by a net increase in working capital other than cash. As part of this net cash provided of \$34.7 million, the net increase in accounts receivable, inventories and accounts payable used cash of \$45.5 million. Operating activities provided cash of \$12.1 million in 1999, reflecting net income adjusted for non-cash charges, offset by approximately \$27.4 million of net increases in receivables, inventories and payables. We expect future receivable and inventory balances to fluctuate with net sales. Any increase in our inventory levels may require the use of cash to finance the inventory. Additionally, we may experience changes in our ability to collect payments from our customers because most of our customers experience the same volatility of the semiconductor capital equipment industry as we.

Investing activities used cash of \$81.2 million in 2001, and consisted of the acquisition of EMCO for \$29.9 million, the net purchase of investments of \$38.8 million and the purchase of property and equipment of \$12.4 million. Investing activities provided cash of \$15.5 million in 2000, and consisted primarily of the purchase of property and equipment of \$14.1 million and the purchase of investments of \$3.5 million, offset by proceeds from the sale of investments and marketable securities of \$33.1 million. Investing activities used cash of \$177.9 million in 1999, and consisted of a net increase in marketable securities of \$170.6 million and the purchase of property and equipment of \$7.2 million. Investing cash flows experience significant fluctuations from year to year as we buy and sell marketable securities, which we convert to cash to fund strategic investments, and as we transfer cash into marketable securities when we attain levels of cash that are greater than needed for current operations.

Financing activities provided cash of \$124.1 million in 2001, and consisted primarily of proceeds from convertible debt of \$121.25 million and proceeds from the exercise of employee stock options and sale of common stock through our employee stock purchase plan, or ESPP, of \$4.0 million. Financing activities used cash of \$37.5 million in 2000, and consisted primarily of open market repurchases of our convertible notes of \$40.8 million, offset by proceeds from the exercise of employee stock options and sale of common stock through our ESPP of \$4.9 million. Financing activities provided cash of \$174.5 million in 1999, and consisted of net proceeds from convertible subordinated debt of \$130.5 million, net proceeds from the sale of common stock of \$37.8 million, proceeds from the exercise of employee stock options and sale of common stock through our ESPP of \$4.5 million, and other proceeds of \$1.7 million.

## Management's Discussion and Analysis of Financial Condition and Results of Operations

We plan to spend approximately \$10 million in 2002 for the acquisition of equipment, leasehold improvements and furnishings, with depreciation expense for 2002 projected to be \$12 million. Our planned level of capital expenditures is subject to frequent revisions because our business experiences sudden changes as we move into industry upturns and downturns and expected sales levels change. In January 2002, we used cash of approximately \$44 million, in addition to assuming approximately \$34 million of debt, to purchase the outstanding common stock of Aera. In February 2002, we agreed to purchase a privately owned, Germany-based provider of power supplies and matching networks, for approximately \$13.5 million to \$20 million. We have also agreed in principle to acquire the remaining 40.5% of LITMAS for approximately 130,000 shares of our common stock. The expected annual capital needs of these acquired companies for 2002 are less than \$3 million.

As of December 31, 2001, we had working capital of \$350.4 million. Our principal sources of liquidity consisted of \$82.0 million of cash and cash equivalents, \$190.0 million of marketable securities, and a credit facility consisting of a \$30.0 million revolving line of credit. Advances under the revolving line of credit bear interest at either the prime rate (4.75% at February 28, 2002) minus 1% or the LIBOR 360-day rate (3.61288% at February 28, 2002) plus 175 basis points, at our option. All advances under this revolving line of credit will be due and payable June 18, 2003. As of December 31, 2001, there was an advance outstanding under this line of credit of \$760,000 to our Japanese subsidiary, Advanced Energy Japan K.K. We are subject to covenants on our line of credit that provide certain restrictions related to working capital, leverage, net worth, and payment and declaration of dividends. We were out of compliance with the maximum loss covenant as of December 31, 2001. We received a written waiver of the covenant and expect to be in compliance with all covenants during 2002. Currently we are restricted from further use of our credit line because the low interest debt of approximately \$34 million that we assumed as part of the Aera acquisition is not subordinated to our line of credit. We are in the process of negotiating a new line of credit. Due to our very liquid balance sheet, we do not expect this restriction, which we believe

to be temporary, to impact our operating or financing strategy.

To finance the facilities for our headquarters and main manufacturing, we lease our executive offices and manufacturing facilities in Fort Collins, Colorado from a limited liability partnership consisting of two of our directors, one of whom is an officer, and other individuals. The leases relating to these spaces expire in 2011, 2013 and 2016. We also lease other office and production space from another limited liability partnership consisting of certain of our directors and other individuals.

We believe that our cash and cash equivalents, marketable securities, cash flow from operations and available borrowings, will be sufficient to meet our working capital needs through at least the end of 2002. After that time, we may require additional equity or debt financing to address our working capital, capital equipment or expansion needs. In addition, any significant acquisitions we make may require additional equity or debt financing to fund the purchase price, if paid in cash. There can be no assurance that additional funding will be available when required or that it will be available on terms acceptable to us. In 2006, when our convertible subordinated notes become due, it is possible we may need substantial funds to repay such debt, which was \$206.6 million at December 31, 2001. Our 5.00% convertible subordinated notes of \$125.0 million are due September 1, 2006, and our 5.25% convertible subordinated notes of \$81.6 million are due November 15, 2006. This could occur if our stock price remains at low levels throughout this period, the prices at which we can effect conversion are not met in the market in which our stock is traded, and the holders of our notes choose not to otherwise convert. In such a situation there can be no assurance that we will be able to refinance the debt.

## Quantitative and Qualitative Disclosures About Market Risk

### INTEREST RATE RISK

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and long-term debt obligations. We generally place our investments with high credit quality issuers and by policy are averse to principal loss and seek to protect and preserve our invested funds by limiting default risk, market risk and reinvestment risk. As of December 31, 2001, our investments in marketable securities consisted primarily of commercial paper, municipal bonds and notes and mutual funds. These securities are highly liquid and of short maturities. Earnings on our marketable securities are typically invested into similar securities. In 2001, the rates we earned on our marketable securities ranged from as high as 8.7% to 2.0% before tax. As the Federal Reserve repeatedly lowered interest rates throughout 2001, the interest rates we earn on our investments likewise decreased substantially. This, in conjunction with using our available cash and cash reserves for acquisitions, including the EMCO acquisition in early 2001 and the Aera acquisition in early 2002, has greatly reduced our recent and anticipated interest income. The impact on interest income of a 10 percent decrease in the average interest rate would have resulted in approximately \$700,000 less interest income in 2001, \$1.1 million in 2000 and \$200,000 in 1999.

The interest rates on our subordinated debt are at fixed rates, specifically, at 5.25% for the \$81.6 million of our debt due November 2006, and at 5.00% for the \$125.0 million of our debt that is due September 2006. Our offerings of subordinated debt in 1999 and 2001 increased our fixed interest expense upon each issuance, though interest expense was partially reduced temporarily by the repurchase of a portion of the first offering in 2000. Because these rates are fixed, we believe there is no risk of increased interest expense.

### FOREIGN CURRENCY EXCHANGE RATE RISK

We transact business in various foreign countries. Our primary foreign currency cash flows are generated in countries in Asia and Europe. We have entered into various forward foreign exchange contracts to hedge against currency fluctuations in the Japanese yen. We will continue to evaluate various methods to minimize the effects of currency fluctuations for when we translate the financial statements of our foreign subsidiaries into US dollars. At

December 31, 2001, we held foreign forward exchange contracts in Japan with notional amounts of \$6.5 million and market settlement amounts of \$6.1 million for an unrealized gain position of \$367,000.

### OTHER RISK

We have invested in start-up companies and strategic alliances and may in the future make additional investments in such companies that develop products which we believe may provide future benefits. We have written down the majority of the cost of one such investment in 2001, related to a strategic alliance we started in 2000. Such current investments and any future investments will be subject to all of the risks inherent in investing in companies that are not established, or in which, due to our level of investment, we do not exercise significant management control.

We are subject to covenants on our line of credit that provide certain restrictions related to working capital, leverage, net worth, and payment and declaration of dividends. We were out of compliance with the maximum loss covenant as of December 31, 2001. We received a written waiver of the covenant and expect to be in compliance with all covenants during 2002. Currently we are restricted from further use of our credit line because the low interest debt of approximately \$34 million that we assumed as part of the Aera acquisition is not subordinated to our line of credit. We are in the process of negotiating a new line of credit. Due to our very liquid balance sheet, we do not expect this restriction, which we believe to be temporary, to impact our operating or financing strategy.

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## Report of Independent Public Accountants

To 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, 2001 and 2000, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2001. 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 auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the 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, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed in the index to 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 the audits of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

ARTHUR ANDERSEN LLP

Denver, Colorado,  
February 28, 2002.

**Consolidated Balance Sheets**

	December 31,	
(In thousands)	2001	2000
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 81,955	\$ 31,716
Marketable securities—available-for-sale	190,023	157,811
Accounts receivable—		
Trade (less allowances for doubtful accounts of approximately \$1,049 and \$784 at December 31, 2001 and 2000, respectively)	26,871	72,732
Related parties	23	38
Other	3,918	3,775
Income tax receivable	15,862	74
Inventories	45,248	45,266
Other current assets	4,178	2,508
Deferred income tax assets, net	11,200	7,483
Total current assets	379,278	321,403
<b>Property and equipment</b> , at cost, net of accumulated depreciation of \$31,946 and \$24,427 at December 31, 2001 and 2000, respectively	31,095	24,101
<b>Other assets:</b>		
Deposits and other	6,482	2,819
Notes receivable	-	2,472
Goodwill and intangibles, net of accumulated amortization of \$6,007 and \$6,061 at December 31, 2001 and 2000, respectively	23,072	9,890
Demonstration and customer service equipment, net of accumulated depreciation of \$3,115 and \$2,302 at December 31, 2001 and 2000, respectively	4,532	2,889
Deferred debt issuance costs, net	5,736	2,261
	39,822	20,331
Total assets	\$450,195	\$365,835

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

	December 31,	
(In thousands, except per share data (par value))	2001	2000
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>Current liabilities:</b>		
Trade accounts payable	\$ 10,231	\$ 17,775
Accrued payroll and employee benefits	6,978	11,723
Accrued warranty expense	4,471	3,975
Accrued restructuring charges	1,427	475
Other accrued expenses	1,387	408
Customer deposits	515	104
Accrued income taxes payable	-	7,923
Capital lease obligations, current portion	6	53
Notes payable, current portion	1,124	1,284
Accrued interest payable on convertible subordinated notes	2,696	529
Total current liabilities	28,835	44,249
<b>Long-term liabilities:</b>		
Notes payable, net of current portion	-	1,043
Convertible subordinated notes payable	206,600	81,600
Deferred income tax liabilities, net	415	-
Total long-term liabilities	207,015	82,643
Total liabilities	235,850	126,892
<b>Commitments and Contingencies</b>		
Minority Interest	-	145
<b>Stockholders' Equity:</b>		
Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding	-	-
Common stock, \$0.001 par value, 55,000 and 40,000 shares authorized; 31,848 and 31,537 shares issued and outstanding at December 31, 2001 and 2000, respectively	32	32
Additional paid-in capital	131,698	124,930
Retained earnings	85,592	116,971
Deferred compensation	(1,094)	(1,620)
Unrealized holding gains on available-for-sale securities	1,257	1,365
Cumulative translation adjustments	(3,140)	(2,880)
Total stockholders' equity	214,345	238,798
Total liabilities and stockholders' equity	\$450,195	\$365,835

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

**Consolidated Statements of Operations**

(In thousands, except per share amounts)	Years Ended December 31,		
	2001	2000	1999
<b>Sales</b>	\$193,600	\$359,782	\$202,849
<b>Cost of sales</b>	136,168	183,329	110,647
Gross profit	57,432	176,453	92,202
<b>Operating expenses:</b>			
Research and development	45,151	36,996	28,326
Sales and marketing	23,784	24,101	18,325
General and administrative	21,522	24,573	16,225
Goodwill impairment	5,446	-	-
Impairment of investments and advances	6,846	-	-
Restructuring charges	3,070	1,000	-
Merger costs	-	4,583	-
Litigation recovery	(1,500)	-	-
Total operating expenses	104,319	91,253	62,876
<b>(Loss) income from operations</b>	<b>(46,887)</b>	<b>85,200</b>	<b>29,326</b>
<b>Other (expense) income</b>			
Interest income	6,581	10,727	2,174
Interest expense	(7,399)	(7,698)	(1,430)
Foreign currency (loss) gain	(235)	(196)	1,504
Other (expense) income, net	(1,025)	4,652	(698)
	(2,078)	7,485	1,550
Net (loss) income before income taxes, minority interest and extraordinary item	(48,965)	92,685	30,876
<b>(Benefit) provision for income taxes</b>	<b>(17,441)</b>	<b>32,241</b>	<b>11,741</b>
Minority interest in net (loss) income	(145)	20	69
Net (loss) income before extraordinary item	(31,379)	60,424	19,066
Extraordinary item (less applicable income taxes of \$4,566) (Note 10)	-	7,610	-
<b>Net (loss) income</b>	<b>\$(31,379)</b>	<b>\$ 68,034</b>	<b>\$19,066</b>
<b>Net (loss) earnings per share before extraordinary item</b>			
Basic	\$ (0.99)	\$ 1.93	\$ 0.64
Diluted	\$ (0.99)	\$ 1.86	\$ 0.62
<b>Earnings per share from extraordinary item:</b>			
Basic	\$ -	\$ 0.24	\$ -
Diluted	\$ -	\$ 0.24	\$ -
<b>Net (loss) earnings per share</b>			
Basic	\$ (0.99)	\$ 2.17	\$ 0.64
Diluted	\$ (0.99)	\$ 2.10	\$ 0.62
<b>Basic weighted-average common shares outstanding</b>	<b>31,712</b>	<b>31,336</b>	<b>29,706</b>
<b>Diluted weighted-average common shares outstanding</b>	<b>31,712</b>	<b>32,425</b>	<b>30,934</b>

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

**Consolidated Statement of Stockholders' Equity**

(In thousands)	For the years ended December 31, 2001, 2000, and 1999						
	Common Stock		Additional	Retained	Deferred	Accumulated	Total
	Shares	Amount	Paid-in Capital	Earnings	Compensation	Comprehensive (Loss) Income	holders' Equity
<b>BALANCES, December 31, 1998</b>	29,160	\$ 29	\$62,677	\$29,871	\$ -	\$ (414)	\$ 92,163
Exercise of stock options for cash	490	1	4,147	-	-	-	4,148
Sale of common stock through employee stock purchase plan	22	-	345	-	-	-	345
Issuance of common stock for intangibles	227	-	2,335	-	-	-	2,335
Tax benefit related to shares acquired by employees under stock compensation plans	-	-	1,422	-	-	-	1,422
Sale of common stock through private and public offerings, net of approximately \$2,448 of expenses	1,070	1	37,826	-	-	-	37,827
Issuance of common stock for services rendered	12	-	136	-	-	-	136
Deferred compensation on stock options issued	-	-	109	-	(109)	-	-
Amortization of deferred compensation	-	-	-	-	23	-	23
Comprehensive income:							
Equity adjustment from foreign currency translation	-	-	-	-	-	(476)	-
Net income	-	-	-	19,066	-	-	-
Total comprehensive income	-	-	-	-	-	-	18,590
<b>BALANCES, December 31, 1999</b>	30,981	31	108,997	48,937	(86)	(890)	156,989
Exercise of stock options for cash	488	1	4,393	-	-	-	4,394
Issuance of common stock for services provided and merger costs	55	-	2,430	-	-	-	2,430
Sale of common stock through employee stock purchase plan	13	-	520	-	-	-	520
Tax benefit related to shares acquired by employees under stock compensation plans	-	-	6,595	-	-	-	6,595
Deferred compensation on stock options issued	-	-	1,995	-	(1,995)	-	-
Amortization of deferred compensation	-	-	-	-	461	-	461
Comprehensive income:							
Equity adjustment from foreign currency translation	-	-	-	-	-	(1,990)	-
Unrealized holding gains	-	-	-	-	-	1,365	-
Net income	-	-	-	68,034	-	-	-
Total comprehensive income	-	-	-	-	-	-	67,409
<b>BALANCES, December 31, 2000</b>	31,537	32	124,930	116,971	(1,620)	(1,515)	238,798
Exercise of stock options for cash	273	-	3,342	-	-	-	3,342
Sale of common stock through employee stock purchase plan	38	-	628	-	-	-	628
Tax benefit related to shares acquired by employees under stock compensation plans	-	-	1,588	-	-	-	1,588
Fair value of stock options assumed in EMCO acquisition	-	-	1,126	-	-	-	1,126
Deferred compensation on stock options issued	-	-	84	-	(84)	-	-
Amortization of deferred compensation	-	-	-	-	610	-	610
Comprehensive income:							
Equity adjustment from foreign currency translation	-	-	-	-	-	(260)	-
Unrealized holding loss	-	-	-	-	-	(108)	-
Net loss	-	-	-	(31,379)	-	-	-
Total comprehensive loss	-	-	-	-	-	-	(31,747)
<b>BALANCES, December 31, 2001</b>	31,848	\$ 32	\$131,698	\$85,592	\$ (1,094)	\$ (1,883)	\$214,345

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

**Consolidated Statements of Cash Flows**

(In thousands)	Years Ended December 31,		
	2001	2000	1999
<b>Cash flows from operating activities:</b>			
Net (loss) income	\$(31,379)	\$ 68,034	\$ 19,066
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities—			
Depreciation of property and equipment	9,973	7,564	6,240
Amortization of intangibles and demonstration and customer service equipment	5,930	2,942	2,116
Amortization of deferred debt issuance costs	775	616	81
Amortization of deferred compensation	610	461	23
Minority interest	(145)	17	69
Stock issued for services rendered and merger costs	—	2,430	136
Provision for deferred income taxes	(3,579)	(3,730)	851
Provision for excess and obsolete inventory	6,412	654	1,520
Impairment of goodwill	5,446	—	—
Impairment of investment	6,846	—	322
Loss (gain) on disposal of property and equipment	13	(54)	(15)
Gain on sale of investment	—	(4,841)	—
Gain on retirement of convertible subordinated notes	—	(12,176)	—
Changes in operating assets and liabilities—			
Accounts receivable—trade, net	45,254	(28,080)	(28,822)
Related parties and other receivables	(128)	(1,994)	(1,306)
Inventories	(5,484)	(17,510)	(6,402)
Other current assets	(1,752)	(705)	(252)
Deposits and other	(180)	(502)	280
Demonstration and customer service equipment	(2,754)	(1,282)	(563)
Trade accounts payable	(5,528)	2,073	9,171
Accrued payroll and employee benefits	(5,099)	4,117	4,467
Accrued warranty expense	496	2,528	1,447
Accrued restructuring charges	952	475	—
Customer deposits and other accrued expenses	3,134	(970)	(425)
Income taxes payable/receivable, net	(21,949)	14,631	4,088
Net cash provided by operating activities	7,864	34,698	12,092
<b>Cash flows from investing activities:</b>			
Purchase of marketable securities	(64,925)	(19,471)	(172,529)
Sale of marketable securities	33,312	48,100	1,928
Proceeds from sale of investment	—	4,464	—
Proceeds from sale of equipment	—	150	—
Purchase of property and equipment, net	(12,435)	(14,062)	(7,168)
Purchase of investments and advances	(7,186)	(3,453)	—
Purchase of LITMAS, net of cash acquired	—	(250)	(175)
Acquisition of Engineering Measurements Company, net of cash acquired	(29,932)	—	—
Net cash (used in) provided by investing activities	(81,166)	15,478	(177,944)

(In thousands)	Years Ended December 31,		
	2001	2000	1999
<b>Cash flows from financing activities:</b>			
Proceeds from notes payable	837	1,491	3,304
Repayment of notes payable and capital lease obligations	(1,973)	(3,123)	(1,637)
Proceeds from convertible debt, net	121,250	-	130,509
Repurchase of convertible debt, net	-	(40,795)	-
Sale of common stock, net of expenses	-	-	37,827
Sale of common stock through employee stock purchase plan	628	520	345
Proceeds from exercise of stock options and warrants	3,342	4,394	4,148
Net cash provided by (used in) financing activities	124,084	(37,513)	174,496
Effect of currency translation on cash	(543)	(1,990)	(476)
Increase in cash and cash equivalents	50,239	10,673	8,168
Cash and cash equivalents, beginning of period	31,716	21,043	12,875
Cash and cash equivalents, end of period	\$81,955	\$31,716	\$ 21,043
<b>Supplemental disclosure of non-cash investing and financing activities:</b>			
Tax benefit related to shares acquired by employees under stock option plans	\$ 1,588	\$ 6,595	\$ 1,422
Conversion of royalty payable to note payable	\$ -	\$ -	\$ 742
Deferred compensation on stock options issued	\$ 84	\$ 1,995	\$ 109
<b>Supplemental disclosure of cash flow information:</b>			
Cash paid for interest	\$ 4,457	\$ 7,385	\$ 459
Cash paid for income taxes, net	\$ 9,572	\$25,791	\$ 6,221

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

## Notes to Consolidated Financial Statements

### 1 COMPANY OPERATIONS

Advanced Energy Industries, Inc. (the "Company"), a Delaware corporation, is primarily engaged in the development and production of products and systems critical to plasma-based manufacturing processes, 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 Industries GmbH ("AE-Germany"), Advanced Energy Industries U.K. Limited ("AE-UK"), Advanced Energy Industries Korea, Inc. ("AE-Korea"), Advanced Energy Taiwan, Ltd. ("AE-Taiwan"), Advanced Energy Industries (ShenZhen) Co., Ltd. ("AE-China"), Advanced Energy Voorhees, Inc. ("AEV"), Tower Electronics, Inc. ("Tower"), Noah Holdings, Inc. ("Noah"), Sekidenko, Inc. ("Sekidenko"), and Engineering Measurements Company ("EMCO"). The Company owns 59.5% of LITMAS. As discussed in Note 3, Noah was merged into the Company on April 6, 2000, Sekidenko was merged into the Company on August 18, 2000, and EMCO was merged into the Company on January 2, 2001. The acquisitions of Noah and Sekidenko were accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements have been restated to include Noah and Sekidenko as though they had always been part of the Company. The acquisition of EMCO was accounted for under the purchase method of accounting, and EMCO's results of operations are included since the acquisition date.

On January 18, 2002, the Company completed the acquisition of Aera Japan Ltd. ("Aera"), a supplier of digital, pressure-based and liquid mass flow controllers, ultrasonic liquid flow meters and liquid vapor delivery systems to the semiconductor capital equipment industry. The aggregate purchase price for Aera was 5.73 billion Japanese yen (approximately \$44 million, based upon the approximate exchange rate at closing of 130:1), which was funded from the Company's available cash. In addition, the Company assumed approximately \$34 million of Aera's senior debt, most of which is with Japanese banks at rates ranging from 1.4% to 3.3%. For its fiscal year ended June 30, 2001, Aera had sales of approximately \$110 million and operating income of approximately \$17 million, compared with sales of \$84.5 million and operating income of \$7.0 million in the previous fiscal year. As of June 30, 2001, Aera had assets of approximately \$94 million. Aera owns 100% of each of the following subsidiaries: Aera Corporation, Aera U.K. Ltd., Aera GmbH and Aera Korea Ltd.

The Company is subject to many risks, some of which are similar to other companies in its industry. These risks

include significant fluctuations of quarterly operating results, the volatility of the semiconductor and semiconductor capital equipment industries, customer concentration within the markets the Company serves, manufacturing and facilities risks, recent and potential future acquisitions, management of growth, supply constraints and dependencies, dependence on design wins, barriers to obtaining new customers, the high level of customized designs, rapid technological changes, competition, international operating risks, intellectual property rights, governmental regulations, dependence on key personnel and the volatility of the market price of the Company's common stock. 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 wholly owned or controlled subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

**CASH AND CASH EQUIVALENTS** – For purposes of reporting cash flows, the Company considers all amounts on deposit with financial institutions and highly liquid 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 market or cost, computed on a first-in, first-out basis.

**MARKETABLE SECURITIES** – The Company has investments in marketable equity securities and municipal bonds, which have original maturities of 90 days or more. In accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities," the investments are classified as available-for-sale and reported at fair value with unrealized gains and losses included in other comprehensive income. Due to the short-term, highly liquid nature of the marketable securities held by the Company, the cost, including accrued interest of such investments, is typically the same as their fair value.

**DEMONSTRATION AND CUSTOMER SERVICE EQUIPMENT** – Demonstration and customer service equipment are manufactured products that are 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.

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

**PROPERTY AND EQUIPMENT** – Property and equipment is stated at cost or estimated fair value upon acquisition. 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 and furniture and fixtures, with computers and communication equipment depreciated over a three-year life. 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.

**GOODWILL AND INTANGIBLES** – Goodwill and intangibles are recorded at the date of acquisition at their allocated cost. Goodwill represents the excess of the cost of businesses acquired over the aggregate fair value of identifiable tangible and intangible net assets at the dates of acquisition. Amortization is provided over the estimated useful lives ranging from five to seven years for both goodwill and the intangible assets.

**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 capital equipment industry. The Company's foreign subsidiaries sales are primarily denominated in currencies other than the U.S. dollar (see Note 18). 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 offers warranty coverage for its products for periods ranging from 12 to 36 months after shipment, with the majority of its products ranging from 18 to 24 months. The Company estimates the costs of repairing products under warranty based on the historical average cost of the repairs. The assumptions used to estimate warranty accruals are reevaluated periodically in light of actual experience and, when appropriate, the accruals are adjusted. Estimated warranty costs are recorded at the time of sale of the related product, and are considered a cost of sale.

**FOREIGN CURRENCY TRANSLATION** – The functional currency of the Company's foreign subsidiaries is their local currency. Assets and liabilities of international subsidiaries are translated to U.S. dollars at year-end exchange rates, and income statement items are translated

at average exchange rates during the year. Resulting translation adjustments are recorded as a separate component of equity. Gains and losses resulting from foreign currency transactions are included in income.

Transactions denominated in currencies other than the local currency are recorded based on exchange rates at the time such transactions arise. Subsequent changes in exchange rates result in foreign currency transaction gains and losses which are reflected in income as unrealized (based on period-end translation) or realized (upon settlement of the transactions). Unrealized transaction gains and losses applicable to permanent investments by the Company in its foreign subsidiaries are included as cumulative translation adjustments, and unrealized translation gains or losses applicable to short-term intercompany receivables from or payables to the Company and its foreign subsidiaries are included in income. The Company recognized losses on foreign currency transactions of approximately \$235,000 and \$196,000 for the years ended December 31, 2001 and 2000, respectively, and a gain on foreign currency transactions of \$1,504,000 for the year ended December 31, 1999.

Financial statement activity for AE-China was immaterial in 2001, 2000 and 1999.

**REVENUE RECOGNITION** – The Company recognizes revenue upon shipment of its systems and spare parts, at which time title passes to the customer, as its shipping terms are FOB shipping point.

The Company has an arrangement with one of its major customers, a semiconductor capital equipment manufacturer, in which completed systems are shipped to the customer and held by them on a consignment basis. The customer draws systems from this inventory as needed, at which time title passes to the customer and the Company recognizes revenue. The customer is subject to the Company's normal warranty policy for repair of defective systems.

In some instances the Company delivers systems to customers for evaluation purposes. In these arrangements, the customer retains the systems for specified periods of time without commitment to purchase. On or before the expiration of the evaluation period, the customer either rejects the system, and returns it to the Company, or accepts the system. Upon acceptance, title passes to the customer, the Company invoices the customer for the system, and revenue is recognized. Pending acceptance by the customer, such systems are reported on the Company's balance sheet at an estimated value based on the lower of cost or market, and are included in the amount for demonstration and customer service equipment, net of accumulated depreciation.

## Notes to Consolidated Financial Statements

**INCOME TAXES** – The Company accounts for income taxes in accordance with SFAS No. 109, "Accounting for Income Taxes." SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at current tax rates, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that such assets will be realized.

**RESTRUCTURING COSTS** – Restructuring charges include the costs associated with actions taken by the Company in response to the continuing downturn in the semiconductor capital equipment industry and in responses to changes in the Company's strategy. Restructuring charges totaling \$3,070,000 and \$1,000,000 were recorded for 2001 and 2000, respectively. These charges consisted of costs that were incremental to the Company's ongoing operations, and were incurred to exit an activity or cancel an existing contractual obligation, closure of facilities and employee termination related charges. Other related costs, consisting primarily of employee relocation, were expensed as incurred.

**STOCK-BASED COMPENSATION** – The Company accounts for employee stock-based compensation using the intrinsic value method prescribed by Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees" and related interpretations. Reference is made to Note 19, for a summary of the pro forma effect of SFAS No. 123 "Accounting for Stock Based Compensation," on the Company's results of operations for the years ended December 31, 2001, 2000 and 1999.

**EARNINGS PER SHARE** – Basic Earnings Per Share ("EPS") is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. The computation of diluted EPS is similar to the computation of basic EPS except that the numerator is increased to include certain charges which would not have been incurred, and the denominator is increased to include the number of additional common shares that would have been outstanding (using the treasury stock and if-converted methods), if securities containing potentially dilutive common shares (convertible notes payable, options and warrants) had been converted to such common shares, and if such assumed conversion is dilutive. For the years ended December 31, 2000 and 1999, certain stock options outstanding and conversion of the convertible subordinated notes payable were not included in this calculation because to do so would be anti-dilutive. The anti-dilutive stock options would have increased the weighted-average number of diluted shares by 239,000 and 131,000 in 2000 and 1999, respectively, and the anti-dilutive convertible subordinated notes, if converted, would have increased the number of diluted shares by 2,546,000 and 341,000 in 2000 and 1999, respectively. Due to the Company's net loss for the year ended December 31, 2001, basic and diluted EPS are the same, as the assumed conversion of all potentially dilutive securities would be anti-dilutive. Potential shares of common stock issuable under these securities at December 31, 2001 were approximately 2,200,000 shares of common stock issuable under options and warrants for common stock and 5,838,000 shares of common stock issuable upon conversion of subordinated notes payable.

The following is a reconciliation of the numerators and denominators used in the calculation of basic and diluted EPS for the years ended December 31, 2001, 2000 and 1999:

(In thousands, except per share data)	2001			2000			1999		
	Net (loss)	Shares	Per share Amount	Net Income	Shares	Per share Amount	Net income	Shares	Per share Amount
Basic EPS:									
Net (loss) income attributable to common stock and share amounts	\$(31,379)	31,712	\$(0.99)	\$68,034	31,336	\$2.17	\$19,066	29,706	\$0.64
Dilutive securities:									
Stock options	-	-	-	-	1,089	-	-	1,228	-
Convertible subordinated debt	-	-	-	-	-	-	-	-	-
Diluted EPS:									
Net (loss) income attributable to common stock and assumed share amounts	\$(31,379)	31,712	\$(0.99)	\$68,034	32,425	\$2.10	\$19,066	30,934	\$0.62

**COMPREHENSIVE INCOME (LOSS) –**

Comprehensive income (loss) for the Company consists of net income (loss), foreign currency translation adjustments and net unrealized holding gains on available-for-sale marketable investment securities and is presented in the Consolidated Statement of Stockholders' Equity.

**SEGMENT REPORTING –** The Company operates in one segment for the manufacture, marketing and servicing of key subsystems for vacuum process systems. In accordance with SFAS No. 131, "Disclosures About Segments of an Enterprise and Related Information," the Company's chief operating decision maker has been identified as the Office of the Chief Executive Officer, which reviews operating results to make decisions about allocating resources and assessing performance for the entire company. All material operating units qualify for aggregation under SFAS No. 131 due to their identical customer base and similarities in: economic characteristics; nature of products and services; and procurement, manufacturing and distribution processes. Since the Company operates in one segment, all financial segment information required by SFAS No. 131 can be found in the consolidated financial statements.

**RECENT ACCOUNTING PRONOUNCEMENTS –** In June 2001, the FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." These statements prohibit pooling-of-interests accounting for transactions initiated after June 30, 2001, require the use of the purchase method of accounting for all combinations after June 30, 2001, and establish new standards for accounting for goodwill and other intangibles acquired in business combinations. Goodwill will continue to be recognized as an asset, but will not be amortized as previously required by APB Opinion No. 17, "Intangible Assets." Certain other intangible assets with indefinite lives, if present, may also not be amortized. Instead, goodwill and other intangible assets will be subject to periodic (at least annual) tests for impairment, and recognition of impairment losses in the future could be required based on a new fair value-based methodology for measuring impairments prescribed by these pronouncements. The revised standards include transition rules and requirements for identification, valuation and recognition of a much broader list of intangibles as part of business combinations than prior practice, most of which will continue to be amortized. The Company's prospective financial statements may be significantly affected by the results of future periodic tests for impairment.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of," and addresses financial accounting and reporting for the impairment of long-lived assets and for long-lived assets to be disposed of. The Company is in the process of assessing the effect of adopting SFAS No. 144, which will be effective for the Company's fiscal year ending December 31, 2002.

**DERIVATIVE INSTRUMENTS –** In June 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." The Company adopted SFAS No. 133, as amended by SFAS No. 137, on January 1, 2001. SFAS No. 133 establishes accounting and reporting standards for derivative instruments and for hedging activity by requiring all derivatives to be recorded on the balance sheet as either an asset or liability and measured at their fair value. Changes in the derivative's fair value will be recognized currently in earnings unless specific hedging accounting criteria are met. SFAS No. 133 also establishes uniform hedge accounting criteria for all derivatives. The Company did not seek specific hedge accounting treatment for its foreign currency forward contracts (Note 18). The adoption of SFAS No. 133 did not have a material impact on the Company's financial condition or results of operations.

**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 reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates are used when accounting for allowances for doubtful accounts, depreciation and amortization, impairment charges, restructuring accruals, warranty reserves, purchase price allocations, income taxes, excess and obsolete inventory and various others items.

## Notes to Consolidated Financial Statements

**ASSET IMPAIRMENTS** – Long-lived assets are comprised of intangible assets and property, plant and equipment. Long-lived assets, including certain identifiable intangibles and the goodwill related to those assets to be held and used, are reviewed by the Company for impairment whenever events or changes in circumstances indicate their carrying amount may not be recoverable. In so doing, the Company estimates the future net cash flows expected to result from the use of the asset and its eventual disposition. If the sum of the expected future net cash flows (undiscounted and without interest charges) is less than the carrying amount of the asset, an impairment loss is recognized to reduce the asset to its estimated fair value. Long-lived assets and certain identifiable intangibles to be disposed of, if any, are reported at the lower of carrying amount or fair value less cost to sell.

During 2001, the Company reviewed certain amounts recorded as goodwill for impairment. Due to declines in the related businesses and changes in the Company's strategy, it was determined that the related expected future cash flows no longer supported the recorded amounts of goodwill, and the Company recorded an impairment in the amount of approximately \$5.4 million. Approximately \$3.6 million of this was related to impairment of goodwill associated with Tower and approximately \$1.8 million was related to impairment of goodwill associated with the Company's Fourth State Technology ("FST") product line.

**RECLASSIFICATIONS** – Certain prior period amounts have been reclassified to conform to the current period presentation.

### 3 ACQUISITIONS

**EMCO** – On January 2, 2001, Engineering Measurements Company ("EMCO"), a publicly held, Longmont, Colorado-based manufacturer of electronic and electromechanical precision instruments for measuring and controlling the flow of liquids, steam and gases, was merged with a wholly owned subsidiary of the Company. The Company paid the EMCO shareholders cash in an aggregate amount of approximately \$30 million. In connection with the acquisition, the Company issued stock options to purchase approximately 71,000 shares of its common stock for the assumption of outstanding, fully vested options for EMCO common stock. The fair value of the options granted was estimated by the Company (using the Black-Scholes option pricing model) to be approximately \$1.1 million. The acquisition was

accounted for using the purchase method of accounting, and the operating results of EMCO are reflected in the accompanying consolidated financial statements prospectively from the date of acquisition. The assets acquired and liabilities assumed were recorded at estimated fair values as determined by the Company's management based on information currently available and on current assumptions as to future operations. The Company has obtained preliminary independent appraisals of the fair values of the acquired property, plant and equipment, and identified intangible assets, and their remaining useful lives. Goodwill and intangibles includes \$20.9 million allocated to goodwill and \$3.4 million allocated to other intangibles.

(In thousands)	
Cash and cash equivalents	\$ 459
Marketable securities	674
Accounts receivable	1,167
Inventories	1,678
Deferred income tax assets, current	584
Other current assets	88
Fixed assets	4,596
Goodwill	20,878
Other intangibles	3,400
Accounts payable	(355)
Accrued payroll	(405)
Other accrued expenses	(391)
Deferred income tax liability	(856)
	\$31,517

There were no transactions between the Company and EMCO prior to the combination. The excess purchase price over the estimated fair value of tangible net assets acquired was allocated to goodwill and other intangibles, which was amortized in 2001 over an average of a seven-year life. In accordance with SFAS No. 141 and 142, the Company ceased amortization of goodwill on January 1, 2002, and will continue to review these assets in the future for impairment. The amount of annual goodwill amortization which will no longer be recorded is approximately \$3.3 million.

Had this combination occurred on January 1, 2000, the pro forma, unaudited, combined results of operations for the Company and EMCO would have generated revenue of approximately \$369.8 million, net income before extraordinary items of approximately \$55.9 million, net income of approximately \$63.5 million, basic earnings per share of \$2.03 and diluted earnings per share of \$1.96.

**SEKIDENKO, INC.** – On August 18, 2000, Sekidenko, Inc. (“Sekidenko”), a privately held, Vancouver, Washington-based supplier of optical fiber thermometers to the semiconductor capital equipment industry, was merged with a wholly owned subsidiary of the Company. The Company issued 2.1 million shares of its common stock to the former shareholders of Sekidenko. In connection with the merger, the Company recorded in the third quarter of 2000 a charge to operating expenses of \$2.3 million for direct merger-related costs.

**NOAH HOLDINGS, INC.** – On April 6, 2000, Noah Holdings, Inc. (“Noah”), a privately held, California-based manufacturer of solid state temperature control systems used to control process temperatures during semiconductor manufacturing, was merged with a wholly owned subsidiary of the Company. The Company issued approximately 687,000 shares of its common stock in connection with the acquisition. In addition, outstanding Noah stock options were converted into options to purchase approximately 40,000 shares of the Company’s common stock. In connection with the merger, the Company recorded in the second quarter of 2000 a charge to operating expenses of \$2.3 million for direct merger-related costs.

The Sekidenko and Noah mergers have been accounted for as poolings of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined balance sheet, statements of operations and cash flows of Noah and Sekidenko as though each had always been part of the Company. There were no transactions between the Company, Noah and Sekidenko prior to the combinations. Certain reclassifications were made to conform the Noah and Sekidenko financial statements to the Company’s presentations. The results of operations for the separate companies and combined amounts presented in the consolidated financial statements follow:

(In thousands)	Years Ended December 31,	
	2000	1999
<b>Sales:</b>		
Pre-Noah and Sekidenko mergers (prior to April 6, 2000)		
Advanced Energy	\$ 67,171	\$183,958
Noah	3,080	7,617
Sekidenko	4,777	11,274
Advanced Energy and Noah combined before Sekidenko merger	123,190	–
Sekidenko before Sekidenko merger (April 6 to August 18, 2000)	7,034	–
Post-Sekidenko merger (August 18 to December 31, 2000)	154,530	–
Consolidated	\$359,782	\$202,849
<b>Net income (loss):</b>		
Pre-Noah and Sekidenko mergers (prior to April 6, 2000)		
Advanced Energy	\$ 9,996	\$16,838
Noah	43	184
Sekidenko	1,199	2,044
Advanced Energy and Noah combined before Sekidenko merger	20,809	–
Sekidenko before Sekidenko merger (April 6 to August 18, 2000)	1,367	–
Noah merger costs	(2,333)	–
Post-Sekidenko merger (August 18 to December 31, 2000)	39,203	–
Sekidenko merger costs	(2,250)	–
Consolidated	\$68,034	\$19,066

**OTHER INTANGIBLES** – During 1999, prior to its acquisition by the Company, Noah acquired various intangible assets, primarily a license agreement and patents, by issuing approximately 214,000 shares of common stock valued at \$1,950,000. Noah management estimated the value of the common stock, since, as a privately held company, there was no public market for Noah's common stock. The entire purchase price was allocated to other intangibles and is being amortized over a seven-year useful life.

During 1998, prior to the acquisition of Sekidenko by the Company, Sekidenko acquired various intangible assets, primarily a license agreement, by issuing approximately 1,680,000 shares of common stock valued at \$2,096,000. Sekidenko’s management estimated the value of the common stock, since, as a privately held company, there was no public market for Sekidenko's common stock. The entire purchase price was allocated to other intangibles and is being amortized over a five-year useful life.

## Notes to Consolidated Financial Statements

LITMAS – During 1998, the Company acquired a 29% ownership interest in LITMAS, a privately held, North Carolina-based early-stage company that designs and manufactures plasma gas abatement systems and high-density plasma sources. The purchase price consisted of \$1 million in cash. On October 1, 1999, the Company acquired an additional 27.5% interest in LITMAS for an additional \$560,000. The purchase price consisted of \$385,000 in the Company's common stock and \$175,000 in cash. The acquisition was accounted for using the purchase method of accounting and resulted in \$523,000 allocated to intangible assets as goodwill. The results of operations of LITMAS are included within the accompanying consolidated financial statements from the date the controlling interest of 56.5% was acquired. On October 1, 2000, the Company acquired an additional 3.0% interest in LITMAS for an additional \$250,000, bringing the Company's ownership interest in LITMAS to 59.5%. Subsequent to year-end, the Company has agreed in principle to acquire the remaining 40.5% of LITMAS for approximately 130,000 shares of the Company's common stock. Based on the Nasdaq closing price of the Company's common stock on February 28, 2002 of \$25.100 per share, the purchase price would have been valued at approximately \$3.3 million.

### 4 PUBLIC OFFERING OF COMMON STOCK

In November 1999, the Company closed on an additional offering of its common stock. In connection with the offering, 1,000,000 shares of common shares were sold at a price of \$39 per share, providing gross proceeds of \$39,000,000, less \$2,448,000 in offering costs.

### 5 MARKETABLE SECURITIES

MARKETABLE SECURITIES consisted of the following:

(In thousands)	December 31,	
	2001	2000
Commercial paper	\$172,506	\$ 85,827
Municipal bonds and notes	12,622	54,022
Mutual funds	4,895	17,962
	\$190,023	\$157,811

These marketable securities are stated at period end market value, which are equal to their original costs plus accrued interest income.

### 6 ACCOUNTS RECEIVABLE – TRADE

ACCOUNTS RECEIVABLE – TRADE consisted of the following:

(In thousands)	December 31,	
	2001	2000
Domestic	\$13,463	\$41,545
Foreign	14,457	31,971
Allowance for doubtful accounts	(1,049)	(784)
Total accounts receivable	\$26,871	\$72,732

### 7 INVENTORIES

INVENTORIES consisted of the following:

(In thousands)	December 31,	
	2001	2000
Parts and raw materials	\$31,273	\$34,462
Work in process	2,521	3,777
Finished goods	11,454	7,027
Total inventories	\$45,248	\$45,266

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

### 8 PROPERTY AND EQUIPMENT

PROPERTY AND EQUIPMENT consisted of the following:

(In thousands)	December 31,	
	2001	2000
Land	\$ 1,127	\$ –
Building	1,673	–
Building equipment	64	–
Machinery and equipment	29,410	25,075
Computers and communication equipment	15,619	12,484
Furniture and fixtures	4,694	4,026
Vehicles	222	197
Leasehold improvements	10,232	6,746
	63,041	48,528
Less—accumulated depreciation	(31,946)	(24,427)
Total property and equipment	\$ 31,095	\$ 24,101

**9 NOTES PAYABLE**

NOTES PAYABLE – consisted of the following:

(In thousands)	December 31,	
	2001	2000
Revolving line of credit of \$30,000,000, expiring June 2003, interest at bank's prime rate minus 1% or the LIBOR 360-day rate plus 175 basis points, (3.75% at December 31, 2001). Borrowing base consists of the sum of 80% of eligible accounts receivable plus the lesser of 20% of eligible inventory or \$5,000,000. Loan covenants provide certain financial restrictions related to working capital, leverage, net worth, payment and declaration of dividends and profitability.	\$ 760	\$875
Note payable, shareholder, paid in full in 2001	-	356
Note payable, royalties, with interest at 7%, with monthly payments ranging from \$5,000 to \$15,000, including interest, due July 2002. The note is unsecured.	244	704
Note payable, other	120	120
Note payable to the New Jersey Economic Development Authority, with interest at 5%, principal and interest due monthly, matures January-2002 and secured by machinery and equipment.	-	109
Note payable, shareholder, paid in full in 2001	-	163
	1,124	2,327
Less – current portion	(1,124)	(1,284)
	\$ -	\$1,043

The Company is subject to covenants on its line of credit that provide certain restrictions related to working capital, leverage, net worth, and payment and declaration of dividends. The Company was out of compliance with the maximum loss covenant as of December 31, 2001, and received a written waiver of the covenant and expects to be in compliance with all covenants during 2002. As of December 31, 2001, the Company had an advance of approximately \$760,000 related to AE-Japan and approximately \$350,000 of letters of credit against the line of credit, for total available credit at that time of approximately \$28.9 million.

Currently the Company is restricted from further use of its credit line because the low interest debt of approximately \$34 million that it assumed as part of the Aera acquisition is not subordinated to its line of credit. The Company is in the process of negotiating a new line of credit.

**10 CONVERTIBLE SUBORDINATED NOTES PAYABLE**

In November 1999, the Company issued \$135 million of 5.25% convertible subordinated notes. These notes mature November 15, 2006, with interest payable on May 15th and November 15th each year beginning May 15, 2000. Net proceeds to the Company were approximately \$130.5 million, after deducting \$4.5 million of offering costs, which have been capitalized and are being amortized as additional interest expense over a period of seven years. Holders of the notes may convert the notes at any time into shares of the Company's common stock, at \$49.53 per share. The Company may redeem the notes on or after November 19, 2002 at a redemption price of 103.00% times the principal amount, and may redeem at successively lesser amounts thereafter until November 15, 2006, at which time the Company may redeem at a redemption price equal to the principal amount. At December 31, 2001, approximately \$500,000 of interest expense related to these notes was accrued as a current liability.

In October and November 2000, the Company repurchased an aggregate of approximately \$53.4 million principal amount of its 5.25% convertible subordinated notes in the open market, for a cost of approximately \$40.8 million. These purchases resulted in an after-tax extraordinary gain of \$7.6 million. The purchased notes have been cancelled. Approximately \$81.6 million principal amount of the notes remains outstanding. The Company may continue to purchase additional notes in the open market from time to time, if market conditions and the Company's financial position are deemed favorable for such purposes.

In August 2001, the Company issued \$125 million of 5.00% convertible subordinated notes. These notes mature September 1, 2006, with interest payable on March 1st and September 1st of each year beginning March 1, 2002. Net proceeds to the Company were \$121.25 million, after deducting \$3.75 million of offering costs, which have been capitalized and are being amortized as additional interest expense over a period of five years. Holders of the notes may convert the notes at any time before maturity into shares of the Company's common stock at a conversion rate of 33.5289 shares per each \$1,000 principal amount of notes, equivalent to a conversion price of approximately \$29.83 per share. The conversion rate is subject to adjustment in certain circumstances. The Company may redeem the notes, in whole or in part, at any time before September 4, 2004, at specified redemption prices plus accrued and unpaid interest, if any, to the date of redemption if the closing price of the Company's common stock exceeds 150% of the conversion price then in effect for at least 20 trading days within a period of 30 consecutive trading

## Notes to Consolidated Financial Statements

days ending on the trading day before the date of mailing of the provisional redemption notice. Upon any provisional redemption, the Company will make an additional payment in cash with respect to the notes called for redemption in an amount equal to \$150.56 per \$1,000 principal amount of notes, less the amount of any interest paid on the note. The Company may also make this additional payment in shares of its common stock, and any such payment will be valued at 95% of the average of the closing prices of the Company's common stock for the five consecutive trading days ending on the day prior to the redemption date. The Company will be obligated to make an additional payment on all notes called for provisional redemption. The Company may also redeem the notes from September 4, 2004 through August 31, 2005 at 102% times the principal amount; from September 1, 2005 through August 31, 2006 at 101% times the principal amount, and thereafter at 100% of the principal amount. The notes are subordinated to the Company's present and potential future senior debt, and are effectively subordinated in right of payment to all indebtedness and other liabilities of the Company's subsidiaries. At December 31, 2001, approximately \$2.2 million of interest expense related to these notes was accrued as a current liability.

### INCOME TAXES

The income tax benefit of \$17.4 million for 2001 represents an effective rate of 36%. The income tax provision of \$36.8 million in 2000, which included a \$4.6 million provision for an extraordinary item, represented an effective rate of 35%. The income tax provision of \$11.7 million for 1999 represented an effective rate of 38%.

The (benefit) provision for income taxes for the years ended December 31, 2001, 2000 and 1999 was as follows:

(In thousands)	December 31,		
	2001	2000	1999
Federal	\$(17,468)	\$ 28,869	\$ 8,087
State and local	(469)	3,592	1,376
Foreign taxes	496	4,346	2,278
	\$(17,441)	\$ 36,807	\$ 11,741
Current	\$(13,462)	\$ 40,537	\$ 10,890
Deferred	(3,979)	(3,730)	851
	\$(17,441)	\$ 36,807	\$ 11,741

The following reconciles the Company's effective tax rate to the federal statutory rate for the years ended December 31, 2001, 2000 and 1999:

(In thousands)	December 31,		
	2001	2000	1999
Income tax (benefit) expense			
per federal statutory rate	\$(17,138)	\$ 36,703	\$10,807
State income taxes, net of federal deduction	(1,259)	2,232	894
Foreign sales corporation	(688)	(2,516)	(331)
Nondeductible merger costs	-	1,604	(228)
Nondeductible intangible and goodwill amortization	2,818	618	553
Other permanent items, net	(1,716)	(2,262)	(137)
Effect of foreign taxes	2	578	1,000
Change in valuation allowance	790	-	(717)
Tax credits	(250)	(150)	(100)
	\$(17,441)	\$ 36,807	\$11,741

The Company's deferred income tax assets are summarized as follows:

(In thousands)	December 31,		
	2001	Change	2000
Employee bonuses and commissions	\$ 386	\$ (1,465)	\$ 1,851
State net operating loss carryforward	790	790	-
Warranty reserve	1,423	377	1,046
Bad debt reserve	301	72	229
Vacation accrual	948	(128)	1,076
Obsolete and excess inventory	4,011	1,578	2,433
Investments	2,476	2,081	395
Depreciation and amortization	(415)	(727)	312
Other	1,655	1,514	141
Valuation allowance	(790)	(790)	-
	\$ 10,785	\$ 3,302	\$ 7,483
Depreciation and amortization acquired in EMCO acquisition	-	677	-
	\$ 10,785	\$ 3,979	\$ 7,483

The domestic versus foreign component of the Company's net (loss) income before income taxes at December 31, 2001, 2000 and 1999, was as follows:

(In thousands)	December 31,		
	2001	2000	1999
Domestic	\$(50,377)	\$ 94,094	\$25,177
Foreign	1,412	10,767	5,699
	\$(48,965)	\$104,861	\$30,876

**12 OTHER INCOME AND EXPENSE ITEMS**

**GAIN ON SALE OF INVESTMENT** – In the third quarter of 2000, the Company exercised warrants of a supplier in a cashless transaction and received 458,000 shares of the supplier's common stock, which is publicly traded. The Company had received the warrants in a series of transactions with the supplier since 1995. Concurrent with the exercise, the Company sold 320,000 shares of the supplier's common stock and recognized a gain of approximately \$4.8 million. The remaining 138,000 shares are valued at approximately \$1.6 million and are included in other long-term assets.

**OTHER OPERATING EXPENSES - SYMPHONY** – Beginning in April 2000, the Company made periodic advances to and investments in Symphony Systems, Inc., a privately held, early-stage developer of equipment productivity management software. In addition to the approximately \$8 million from the Company as investments, advances and license payments, Symphony received investments of \$7 million from other parties. In 2000, the Company obtained an exclusive license, for which the Company paid \$1.5 million, to use Symphony's products in the semiconductor industry. In connection with certain of the Company's advances in 2001, it obtained a security interest in all of Symphony's intellectual and proprietary property.

Beginning in the third quarter of 2001, and continuing through the end of the year, Symphony's financial situation began to deteriorate significantly, and the Company determined that due to Symphony's need for immediate liquidity, its declining business prospects (including the indefinite postponement of a significant order for its products from a major semiconductor equipment manufacturer) and other factors, the value of the Company's investment in and advances to Symphony had substantially declined. Given the precarious financial condition of Symphony, the Company valued its investments in and advances to Symphony at December 31, 2001, at approximately \$1 million, which reflects its assessment of the value of the Symphony technology license, which has continuing value to the Company. The amount of the impairment related to Symphony was \$6.8 million, all of which was recorded in 2001 as an operating expense.

Since Symphony effectively ceased operations in February 2002, the Company hired its key employees and intends to purchase Symphony's remaining assets in a foreclosure, liquidation or bankruptcy sale in the near future. At no time did the Company's percentage ownership in the voting stock of Symphony exceed approximately 1.7%, and the Company has never had the ability to exercise significant influence over Symphony.

**13 RETIREMENT PLAN**

The Company has 401(k) Profit Sharing Plans which cover most full-time employees who have completed six months of full-time continuous service and are age eighteen or older. Depending on the plan in which a participant is enrolled, participants may defer up to either 10% or 15% of their gross pay up to a maximum limit determined by law. Participants are immediately vested in their contributions.

The Company may make discretionary contributions based on corporate financial results for the fiscal year. Effective January 1, 1998, the Company increased its matching contribution for participants in the 401(k) Plans up to a 50% matching on contributions by employees up to 6% of the employee's compensation. The Company's total contributions to the plans were approximately \$1,433,000, \$1,291,000 and \$848,000 for the years ended December 31, 2001, 2000 and 1999, respectively. Vesting in the profit sharing contribution account is based on years of service, with most participants fully vested after five years of credited service.

The Company also has a Money Purchase Pension Plan, which covers certain employees. This plan was frozen, effective July 1, 1998, and the Company is not required to make contributions to the plan for future years. The Company's contributions to this plan were \$62,000 for 2000. The Company made no contributions in 2001 and 1999.

**14 COMMITMENTS AND CONTINGENCIES  
DISPUTES AND LEGAL ACTIONS**

– The Company is involved in disputes and legal actions arising in the normal course of its business. The Company does not believe that the ultimate resolution of such litigation will have a material adverse effect on the Company's financial position, results of operations or cash flows. The Company accrues loss contingencies in connection with its litigation when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated.

**CAPITAL LEASES**

The Company finances a portion of its property and equipment under capital lease obligations. The future minimum lease payments under capitalized lease obligations as of December 31, 2001 were approximately \$6,000, all a current liability.

## Notes to Consolidated Financial Statements

### OPERATING LEASES

The Company has various operating leases for automobiles, equipment, and office and production facilities (Note 17). Lease expense under operating leases was approximately \$5,770,000, \$5,155,000 and \$4,926,000 for the years ended December 31, 2001, 2000 and 1999, respectively.

The future minimum rental payments required under noncancelable operating leases as of December 31, 2001 are as follows:

(In thousands)	
2002	\$ 5,211
2003	4,194
2004	3,610
2005	3,189
2006	3,018
Thereafter	17,117
	<b>\$36,339</b>

### 15 RESTRUCTURING

The Company recorded \$3,070,000 of restructuring charges in 2001, primarily associated with reductions in force to respond to the downturn in the semiconductor capital equipment industry and the global economy. The Company's restructuring plans and associated costs consisted of \$2,124,000 to terminate 330 employees and \$946,000 to close three facilities. These costs were recorded in the accompanying consolidated statements of operations as "Restructuring Charges" as a component of operating expenses.

The employee termination costs of \$2,124,000 included severance benefits and notice pay. All terminations and termination benefits were communicated to the affected employees prior to year-end, and severance benefits are expected to be paid in full in 2002. The affected employees were all part of the Company's U.S. operations and included full-time permanent and temporary employees, and consisted primarily of manufacturing and administrative personnel.

The facility related costs of \$946,000 resulted from the phase out the Company's Austin, Texas manufacturing facility to begin outsourcing the assembly of certain DC power products; the transition of its Voorhees, New Jersey facility from a manufacturing site to a design center; and the closure of Noah's manufacturing and office facilities in San Jose, California, due to the transfer of Noah's manufacturing to Vancouver, Washington, to be co-located with Sekidenko. These costs accrued reflect payments required under operating lease contracts and costs for writing down related leasehold improvements of facilities.

At December 31, 2001, outstanding liabilities related to the

2001 restructuring charges were approximately \$1.3 million, and were reported on the consolidated balance sheet.

The Company also recorded a \$1,000,000 restructuring charge in 2000 related to the termination of employees associated with Tower in Fridley, Minnesota, and charges related to closing that facility, resulting from the relocation of Tower's operations to the Company's facility in Voorhees, New Jersey. This restructuring was completed in the fourth quarter of 2000. As of December 31, 2000, approximately \$475,000 related to this restructuring was reported on the Company's consolidated balance sheet as an accrued liability. Approximately \$80,000 of this restructuring charge related to the lease of the facility was still outstanding as of December 31, 2001.

The following table summarizes the components of the restructuring charges, the payments and non-cash charges, and the remaining accrual as of December 31, 2001:

(In thousands)	Employee Severance and Termination Costs	Facility Closure Costs	Total Restructuring Charges
2000 Restructuring charges	\$ 681	\$ 319	\$ 1,000
Payments in 2000	(380)	(145)	(525)
Accrual balance			
December 31, 2000	\$ 301	\$ 174	\$ 475
Second quarter 2001 restructuring charge	614	-	614
Fourth quarter 2001 restructuring charge	1,510	946	2,456
Total restructuring charges 2001	2,124	946	3,070
Payments in 2001	(1,460)	(658)	(2,118)
Accrual balance			
December 31, 2001	\$ 965	\$ 462	\$ 1,427

### 16 INDUSTRY SEGMENT, FOREIGN OPERATIONS AND MAJOR CUSTOMERS

SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information," requires a public business enterprise to report financial and descriptive information about its reportable operating segments. SFAS No. 131, which is based on a management approach to segment reporting, establishes requirements to report selected segment information quarterly and to report annually entity-wide disclosures about products and services, major customers, and the countries in which the entity holds material assets and reports revenue. Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision-

maker in deciding how to allocate resources and assess performance. Management operates and manages the Company's business for the manufacture, marketing and servicing of its products and related systems as one operating segment. All material operating units qualify for aggregation under SFAS No. 131 because all the Company's products and systems have similar economic characteristics, and procurement, production and distribution processes. To report revenues from external customers for each product and service or each group of similar products and services would be impracticable. Since the Company operates in one segment, all financial segment information required by SFAS No. 131 is found in the accompanying consolidated financial statements.

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

(In thousands)	Years Ended December 31,		
	2001	2000	1999
<b>Sales:</b>			
Originating in U.S. and sold to domestic customers	\$124,746	\$260,596	\$148,424
Originating in U.S. and sold to foreign customers	19,687	35,504	23,996
Originating in Europe to unaffiliated customers	18,239	24,375	12,724
Originating in Asia Pacific to unaffiliated customers	30,928	39,307	17,705
Transfers between geographic areas	40,774	48,963	24,053
Intercompany eliminations	(40,774)	(48,963)	(24,053)
	<b>\$193,600</b>	<b>\$359,782</b>	<b>\$202,849</b>
<b>(Loss) income</b>			
from operations:			
U.S.	\$ (47,532)	\$ 73,508	\$ 25,390
Europe	1,517	3,805	2,379
Asia Pacific	1,157	7,878	1,946
Intercompany eliminations	(2,029)	9	(389)
	<b>\$ (46,887)</b>	<b>\$ 85,200</b>	<b>\$ 29,326</b>
<b>Identifiable assets:</b>			
U.S.	\$529,465	\$387,953	
Europe	21,357	19,263	
Asia Pacific	23,633	29,281	
Intercompany eliminations	(124,260)	(70,662)	
	<b>\$450,195</b>	<b>\$365,835</b>	

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

The Company has a major customer (sales in excess of 10% of total sales) that is a manufacturer of semiconductor capital equipment. Sales to this customer accounted for the following percentages of sales for the years ended December 31, 2001, 2000 and 1999:

	December 31,		
	2001	2000	1999
Applied Materials, Inc.	24%	39%	34%

The Company had trade accounts receivable from this customer of approximately \$8.0 million as of December 31, 2000, which was approximately 11.0% of the Company's total trade accounts receivable. The Company had no other trade accounts receivable from any customers in excess of 10% of its total trade accounts receivable as of December 31, 2001 and 2000.

## 17 RELATED PARTY TRANSACTIONS

The Company leases its executive offices and manufacturing facilities in Fort Collins, Colorado from a limited liability partnership consisting of certain directors of the Company and other individuals. The leases relating to these spaces expire in 2011, 2013 and 2016 and contain monthly payments of approximately \$52,000, \$52,000 and \$62,000, respectively. The Company also leases other office and production space from another limited liability partnership consisting of certain directors of the Company and other individuals. The lease relating to this space expires in 2002 with a monthly payment of approximately \$28,000.

Approximately \$2,229,000, \$1,637,000 and \$1,693,000 were paid and charged to rent expense attributable to these leases for the years ended December 31, 2001, 2000, and 1999, respectively. In 2000, the Company also paid an additional \$637,000 to one of the partnerships for leasehold improvements made in the normal course of the Company's operations, which are capitalized and reported as leasehold improvements on the balance sheet as part of property and equipment.

The Company leases, for business purposes, a condominium owned by a partnership of certain stockholders. The Company paid the partnership \$47,000, \$36,000, and \$36,000 in 2001, 2000, and 1999, respectively.

## Notes to Consolidated Financial Statements

The Company charters aircraft from time to time from companies owned by a certain shareholder. Aggregate payments for the use of such aircraft were \$0, \$57,000 and \$238,000 in 2001, 2000 and 1999, respectively.

### 18 CONCENTRATIONS OF CREDIT RISK

**FORWARD CONTRACTS** – The Company's subsidiary AE-Japan enters into foreign currency forward contracts to buy U.S. dollars to mitigate currency exposure from its payable position arising from trade purchases and intercompany transactions with its parent. Foreign currency forward contracts reduce the Company's exposure to the risk that the eventual net cash outflows resulting from the purchase of products denominated in other currencies will be adversely affected by changes in exchange rates. Foreign currency forward contracts are entered into with a major commercial Japanese bank that has a high credit rating, and the Company does not expect the counterparty to fail to meet its obligations under outstanding contracts. Foreign currency gains and losses under the above arrangements are not deferred. The Company generally enters into foreign currency forward contracts with maturities ranging from four to eight months, with contracts outstanding at December 31, 2001 maturing through July 2002. All forward contracts are held until maturity. At December 31, 2001, the Company held foreign forward exchange contracts with notional amounts of \$6,500,000 and market settlement amounts of \$6,133,000 for an unrealized gain position of \$367,000 that has been included in foreign currency (loss) gain in the accompanying consolidated statement of operations.

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

### 19 STOCK PLANS

#### 1995 EMPLOYEE STOCK OPTION PLAN –

During 1993, the Company adopted an Employee Stock Option Plan (the "Employee Option Plan") that has been amended and restated various times through December 2001. The Employee Option Plan allows issuance of incentive stock options, non-qualified 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 non-qualified stock options shall not be less than 85% of the stock's fair market value on the date of grant. Options the Company (exclusive of acquired subsidiaries) issued under this plan in 2001, 2000 and 1999 were at 100% of fair market value with typical vesting over three to four 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 8,125,000 shares of common stock for the issuance of stock under the Employee Option Plan, which terminates in June 2003.

During 1999, prior to its acquisition by the Company, a shareholder of Sekidenko granted employees options under a preexisting arrangement to purchase shares of his common stock already outstanding at exercise prices below fair market value. Under this agreement, 29,700 and 34,250 of such options were exercised in 1999 and 2000, respectively. These options result in the Company recognizing \$109,000 as compensation expense over the four-year vesting period related to the 1999 purchases, and \$1,995,000 as compensation expense over the four-year vesting period related to the 2000 purchases. Compensation expense of \$526,000, \$461,000 and \$23,000 was recognized in 2001, 2000 and 1999, respectively. These amounts are presented as a reduction of stockholders' equity, and the remaining amount of deferred compensation of \$1,094,000 is being amortized over the four-year vesting period of the related stock options.

**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) 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 2001, 2000 and 1999, employees purchased an aggregate of 37,376, 13,025 and 22,390 shares under the Stock Purchase Plan, respectively.

**NON-EMPLOYEE DIRECTORS 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. In May 2001, the plan was amended to increase the number of shares of common stock issuable under such plan to 200,000 shares of common stock. The Directors Plan provides for automatic grants of non-qualified 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.

**2001 EMPLOYEE STOCK OPTION PLAN** – In 2001, the Company adopted the 2001 Stock Option Plan (the “2001 Option Plan”), which was not required to be approved by the Company’s stockholders. The 2001 Option Plan is a broad-based plan for employees and consultants in which executive officers and directors of the Company are not allowed to participate. The board of directors currently administers the plan, and makes all decisions concerning which employees and consultants are granted options, how many to grant to each optionee, when options are granted, how the plan should be properly interpreted, whether to amend or terminate the plan, and whether to delegate administration of the plan to a committee. The 2001 Option Plan allows issuance of only non-qualified options. The exercise price of the options shall not be less than 100% of the stock’s fair market value on the date of grant, and the options vest over four years. The options are exercisable for ten years from the date of grant. The Company has reserved up to 600,000 shares of common stock under the plan. The 2001 Option Plan will expire in January 2011, unless the administrator of the plan terminates it earlier.

## Notes to Consolidated Financial Statements

The following summarizes the activity relating to options for the years ended December 31, 2001, 2000 and 1999:

(In thousands, except share prices)	2001		2000		1999	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
<b>Stock options:</b>						
Employee stock options –						
Options outstanding at beginning of period	1,719	\$ 23.39	1,850	\$ 13.90	1,987	\$ 9.01
Granted	845	25.64	461	45.45	417	30.31
Exercised	(273)	12.13	(488)	9.12	(487)	8.44
Terminated	(183)	31.22	(104)	19.26	(67)	10.44
Options outstanding at end of period	2,108	25.07	1,719	23.39	1,850	13.90
Options exercisable at end of period	938	20.45	689	14.09	801	9.10
Weighted-average fair value of options granted during the period						
	\$25.61		\$32.75		\$18.78	
Price range of outstanding options						
	\$0.67 - \$64.94		\$0.67 - \$60.75		\$0.67 - \$44.97	
Price range of options terminated						
	\$7.50 - \$60.75		\$0.83 - \$43.69		\$3.88 - \$28.16	
<b>Non-employee directors stock options–</b>						
Options outstanding at beginning of period	75	\$ 27.25	55	\$ 19.04	40	\$ 12.18
Granted	15	24.44	20	49.81	18	32.94
Exercised	–	–	–	–	(3)	11.05
Terminated	–	–	–	–	–	–
Options outstanding at end of period	90	26.92	75	27.25	55	19.04
Options exercisable at end of period	45	16.97	32	18.65	22	17.27
Weighted-average fair value of options granted during the period						
	\$ 24.85		\$ 30.83		\$ 20.11	
Price range of outstanding options						
	\$6.13 - \$60.75		\$ 6.13 - \$64.94		\$ 6.13 - \$36.94	
Price range of options terminated						
	\$ –		\$ –		\$ –	

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 employee stock-based compensation plans under APB No. 25, under which compensation expense, if any, is recognized based on the intrinsic value of stock options and other stock awards, generally measured at the date of grant.

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:

	2001	2000	1999
Risk-free interest rates	4.51%	6.06%	5.92%
Expected dividend yield rates	0.0%	0.0%	0.0%
Expected lives	7 years	7 years	7 years
Expected volatility	87.94%	103.69%	77.33%

The total fair value of options granted was computed to be approximately \$17,675,000, \$15,719,000 and \$8,192,000 for the years ended December 31, 2001, 2000 and 1999, 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 \$5,413,000 and \$4,554,000 and \$2,999,000 for 2001, 2000 and 1999, respectively.

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

(In thousands, except per share data)	2001	2000	1999
Net (loss) income :			
As reported	\$(31,379)	\$68,034	\$19,066
Pro forma	(36,792)	63,480	16,067
Diluted (loss) earnings per share:			
As reported	\$ (0.99)	\$ 2.10	\$ 0.62
Pro forma	(1.16)	1.96	0.52

The following table summarizes information about the stock options outstanding at December 31, 2001:

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
\$ 0.67 to \$ 2.57	16,000	1.8 years	\$ 1.23	16,000	\$ 1.20
\$ 3.11 to \$ 6.75	190,000	6.0 years	\$ 5.78	149,000	\$ 5.58
\$ 7.50 to \$ 9.00	239,000	5.1 years	\$ 8.25	184,000	\$ 8.44
\$9.53 to \$ 16.51	244,000	6.0 years	\$13.69	227,000	\$13.69
\$17.32 to \$26.63	438,000	9.1 years	\$21.07	66,000	\$20.05
\$27.57 to \$40.00	665,000	8.6 years	\$30.86	159,000	\$29.60
\$43.69 to \$64.94	406,000	8.1 years	\$47.05	182,000	\$46.28
	2,198,000	7.7 years	\$ 25.15	983,000	\$20.29

## 20 FAIR VALUE OF FINANCIAL INSTRUMENTS

The Company's financial instruments include cash, trade receivables, trade payables, marketable securities, short-term and long-term debt, and foreign currency forward exchange contracts (see Note 18). The fair values of cash, trade receivables, trade payables and short-term debt approximate the carrying values due to the short term nature of these instruments. Marketable securities are stated at fair value (see Note 5). At December 31, 2001 and 2000, the carrying value of long-term debt was \$206.6 million and \$82.6 million, respectively. At December 31, 2001, the estimated fair value of the Company's 5.25% convertible subordinated notes that are due November 15, 2006, was approximately \$72 million, compared to a book value of \$81.6 million. The estimated fair value of the Company's 5.00% convertible subordinated notes that are due September 1, 2006, was estimated as approximately \$141 million, compared to a book value of \$125 million.

## 21 GOODWILL IMPAIRMENT

During the second quarter of 2001, the Company terminated the operations of Tower and FST, due to significant softening in the projected demand for these products. Revenue contributed by Tower and FST operations for 2001, 2000 and 1999 represented less than five percent of total revenue for each period. Because the expected future cash flows for these products were insignificant after the second quarter of 2001, the Company recognized an impairment charge of \$3.6 million related to the termination of Tower and a charge of \$1.8 million related to the termination of FST. These amounts represented the carrying values of these assets on June 30, 2001, before the writedown. These charges are disclosed as "Goodwill Impairment" in the Operating Expenses section of the accompanying consolidated statement of operations.

## Notes to Consolidated Financial Statements

### 22 SUBSEQUENT EVENTS

**AERA** – On January 18, 2002, the Company completed its acquisition of Aera Japan Limited, a Japanese corporation (“Aera”). The acquisition was effected through AE-Japan, which purchased all of the outstanding stock of Aera. The aggregate purchase price paid by AE-Japan was 5.73 billion Japanese yen (approximately \$44 million, based upon an exchange rate of 130:1), which was funded from the Company’s available cash. In connection with the acquisition, AE-Japan assumed approximately \$34 million of Aera’s debt. Aera, which is headquartered in Hachioji, Japan, has manufacturing facilities there and manufacturing, sales and service offices in Austin, Texas; Dresden, Germany; Edinburgh, Scotland; and Bundang, South Korea; and sales and service offices in Kirchheim, Germany; and Hshinchu, Taiwan. Aera supplies the semiconductor capital equipment industry with product lines that include digital mass flow controllers, pressure-based mass flow controllers, liquid mass flow controllers, ultrasonic liquid flow meters and liquid vapor delivery systems.

**PRIVATE COMPANY** – On February 28, 2002, the Company agreed to purchase a privately owned Germany-based provider of power supplies and matching networks, for a purchase price ranging from \$13.5 million

to \$20 million depending on the outcome of contingencies. The Company is performing due diligence and expects to complete the transaction by April 30, 2002.

**LITMAS** – The Company has an agreement in principle to acquire the 40.5% that it currently does not own for approximately 130,000 shares of the Company’s common stock. Based on the Nasdaq closing price of the Company’s common stock on February 28, 2002 of \$25.100 per share, the purchase price would have been valued at approximately \$3.3 million.

### 23 QUARTERLY FINANCIAL DATA

The following table presents unaudited quarterly financial data for each of the eight quarters in the period ended December 31, 2001. The quarters ended March 31, 2000 and June 30, 2000 have been restated to include the combined selected financial data of Noah and Sekidenko as though each had always been part of the Company. The Company believes that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. The operating results for any quarter are not necessarily indicative of results for any subsequent period.

	Quarters Ended							
	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000	Mar. 31, 2001	June 30, 2001	Sept. 30, 2001	Dec. 31, 2001
(In thousands, except per share data)								
Sales	\$75,028	\$85,701	\$96,317	\$102,736	\$74,714	\$ 46,171	\$ 38,722	\$33,993
Gross profit	36,667	42,363	46,825	50,598	31,223	7,781	11,036	7,392
Income (loss) from operations	17,048	20,343	20,884	26,925	7,531	(20,927)	(11,663)	(21,828)
Net income (loss) before extraordinary item	11,238	13,118	16,289	19,779	5,094	(14,549)	(7,482)	(14,442)
Extraordinary item (net of income taxes)	-	-	-	7,610	-	-	-	-
Net income (loss)	\$11,238	\$13,118	16,289	\$ 27,389	\$ 5,094	\$(14,549)	\$ (7,482)	\$(14,442)
Diluted earnings (loss) per share before extraordinary item	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.61	\$ 0.16	\$ (0.46)	\$ (0.24)	\$ (0.45)
Diluted earnings per share from extraordinary item	\$ -	\$ -	\$ -	\$ 0.22	\$ -	\$ -	\$ -	\$ -
Diluted earnings (loss) per share	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.83	\$ 0.16	\$ (0.46)	\$ (0.24)	\$ (0.45)

The following table presents unaudited quarterly financial data for the two quarters ended June 30, 2000, retroactively combining the selected financial data of Noah and Sekidenko for the periods prior to the periods in which each was merged with the Company.

(In thousands except per share data)	Quarters Ended	
	Mar. 31, 2000	June 30, 2000
Sales	\$ 7,857	\$ 5,115
Gross profit	4,493	3,024
Income from operations	2,179	1,809
Net income	\$ 1,242	\$ 1,088
Diluted earnings per share	\$ 0.01	\$ -

The following table presents unaudited quarterly financial data for the Company for the two quarters ended March 31, 2000 and June 30, 2000, as previously reported on the Company's Forms 10-Q for those periods.

(In thousands except per share data)	Quarters Ended	
	March 31, 2000	June 30, 2000
Sales	\$67,171	\$80,586
Gross profit	32,174	39,339
Income from operations	14,869	18,534
Net income	\$ 9,996	\$12,030
Diluted earnings per share	\$ 0.34	\$ 0.40

**Schedule II—Valuation and Qualifying Accounts**

(In thousands)	Balance at Beginning of Period	Additions Due to Acquisition	Additions Charged to Expense	Deductions	Balance at End of Period
Year ended December 31, 1999:					
Inventory obsolescence reserve	\$ 2,626	\$ —	\$ 1,520	\$1,842	\$ 2,304
Allowance for doubtful accounts	622	—	101	84	639
	\$ 3,248	\$ —	\$ 1,621	\$1,926	\$ 2,943
Year ended December 31, 2000:					
Inventory obsolescence reserve	\$ 2,304	\$ —	\$ 654	\$ 705	\$ 2,253
Allowance for doubtful accounts	639	—	145	—	784
	\$ 2,943	\$ —	\$ 799	\$ 705	\$ 3,037
Year ended December 31, 2001:					
Inventory obsolescence reserve	\$ 2,253	\$ 180	\$6,412	\$3,214	\$5,631
Allowance for doubtful accounts	784	100	282	117	1,049
	\$ 3,037	\$ 280	\$6,694	\$3,331	\$6,680

## Corporate Management

**DOUGLAS S. SCHATZ**

Chairman, President, and Chief Executive Officer

**JAMES F. GENTILCORE**

Executive Vice President and Chief Operating Officer

**MICHAEL EL-HILLOW**

Senior Vice President, Finance and Administration,  
and Chief Financial Officer

**RICHARD A. SCHOLL**

Senior Vice President and Chief Technology Officer

**RICHARD P. BECK**

Senior Vice President

**JAMES G. GUILMART**

Senior Vice President of Global Sales

**TIMOTHY A. KERR**

Senior Vice President and General Manager,  
Thermal Products

**JOSEPH R. MONKOWSKI, PH. D.**

Senior Vice President, Business Development

**JOSEPH STACH, PH.D.**

Senior Vice President

**FRED B. WEAVER**

Senior Vice President, Operations

**JAMES H. BENSHOOF**

Vice President and Chief Information Officer

**CURTIS C. CAMUS**

Vice President and General Manager, Source Products

**RALPH H. CASTAIN**

Vice President and General Manager,  
Integrated Control Products

**MONICA DeMARCO**

Vice President, Supplier Quality

**RAY R. DILS**

Senior Vice President and Chief Technical Officer,  
Thermal Products

**JAMES R. GORDLEY**

Vice President and General Manager, Flow Products

**MARIO A. GUERRERO**

Vice President, Strategic Planning

**MONICA M. MOLONEY**

Vice President, Human Resources

**COLIN QUINN**

Vice President and General Manager, Source Products

**WILLIAM A. RUFF**

Vice President and General Manager, RF Products

**BRENDA M. SCHOLL**

Vice President and General Manager, DC Products

**DAVID K. SMITH**

Vice President, Finance, and Controller

**KEVIN J. THOMAS**

Vice President, Customer Satisfaction

*See page 44 for the list of directors.*

## Board of Directors

**DOUGLAS S. SCHATZ**, 56, is an AE co-founder and has been its chairman, chief executive officer, and a director since its incorporation in 1981. Until July 1999 he also served as president and resumed that role in March 2001. Mr. Schatz also co-founded Energy Research Associates, Inc. and served as its vice president of engineering from 1997 through 1980. Mr. Schatz is a director of Advanced Power Technology, Inc., a publicly held manufacturer of high power, high voltage, and high performance semiconductors and power modules. He is also a director and advisor to several private technology companies.

**G. BRENT BACKMAN**, 61, is a co-founder of AE and has been a director since its incorporation in 1981. Mr. Backman had been a vice president of AE since its incorporation until April 1998, when he became senior vice president, Special Projects. He served in that position until December 1998, when he retired from Advanced Energy. Prior to co-founding AE, Mr. Backman was a business manager at Ion Tech, Inc. and a laboratory administrator at Hughes Aircraft Company.<sup>(1)</sup>

**RICHARD P. BECK**, 68, joined AE in March 1992 as vice president and chief financial officer and became senior vice president in February 1998. He became an AE director in September 1995. In October 2001, Mr. Beck retired from the position of chief financial officer, but remains as a senior vice president. Mr. Beck is chairman of the board of Applied Films Corporation, a publicly held manufacturer of flat panel display equipment. He is a director of Photon Dynamics, a publicly held manufacturer of flat panel display test equipment, and serves on its audit committee. Mr. Beck is also a director of TTM Technologies, Inc. a publicly held manufacturer of printed circuit boards, and serves as chairman of its audit committee.

**TRUNG T. DOAN**, 43, has been employed by Micron Technology, Inc., a provider of semiconductor memory solutions, since 1988, and has served as its vice president of Process Development since July 1997. Mr. Doan was a director of Engineering Measurements Company (EMCO), until it was acquired by Advanced Energy in January 2001. He is also a director of NuTool, Inc., a privately held semiconductor equipment manufacturer.<sup>(1)</sup>

**ARTHUR A. NOETH**, 66, joined the AE board in July 1997. From 1993 to 1998, Mr. Noeth was president of the Implant Center, a provider of ion implant services to the electronics industry. From April 1987 to September 1993, he was president of A.N. Services, a business consulting service.<sup>(1, 2, 3)</sup>

**ELWOOD SPEDDEN**, 64, joined the AE board in September 1995. Mr. Spedden was a vice president of KLA-Tencor Semiconductor, a manufacturer of automatic test equipment used in the fabrication of semiconductors, from July 1996 to June 1997. From 1990 through March 1996, he was with Credence Systems Corporation, a manufacturer of automatic test equipment used in the fabrication of semiconductors, in various senior management positions including president, chief executive officer, and vice-chairman of the board of directors. In January 2002, Mr. Spedden joined the board of directors of Photon Dynamics, Inc., a publicly held manufacturer of flat panel display test equipment. From 1996 to 2001, Mr. Spedden was a director of Insight Objects, a privately held software company.<sup>(1, 2, 3)</sup>

**GERALD STAREK**, 60, joined the AE board in October 1998, following the AE's acquisition of RF Power Products, Inc. Mr. Starek had been a non-employee director of RF Power Products since February 1994. He founded Silicon Valley Group, Inc., a supplier of automated wafer processing equipment for the semiconductor industry. He served as Silicon Valley Group's chairman from September 1984 to September 1991 and as vice chairman from September 1991 to April 1993. Mr. Starek is a director and serves on the compensation committee of AML Communications, Inc., a publicly held manufacturer of components for wireless communications systems.<sup>(1, 2)</sup>

**ARTHUR W. ZAFIROPOULO**, 63, joined the AE board in October 1998, following AE's acquisition of RF Power Products, Inc. Mr. Zafiropoulo had been a non-employee director of RF Power Products since July 1992. Mr. Zafiropoulo is the founder of Ultratech Stepper, Inc., a company that develops, manufactures and markets photolithography equipment for the semiconductor industry. Mr. Zafiropoulo has been chief executive officer and chairman of the board of directors of Ultratech Stepper since March 1993. Mr. Zafiropoulo also served as president of Ultratech Stepper from March 1997 until April 1999, as he did from March 1993 to March 1996. Mr. Zafiropoulo is the vice chairman of SEMI (Semiconductor Equipment and Materials International), an international trade association.<sup>(1, 3)</sup>

<sup>(1)</sup> Member of the Nominating Committee

<sup>(2)</sup> Member of the Audit and Finance Committee

<sup>(3)</sup> Member of the Compensation Committee

# Contact and Shareholder Information

## CORPORATE HEADQUARTERS

## STOCKHOLDER INFORMATION

Stock Listing

Annual Meeting

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