UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (date of earliest event reported): April 15, 2004

ADVANCED ENERGY INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware (State of incorporation) 000-26966 (Commission File Number) 84-0846841

(IRS Employer Identification No.)

<u>1625 Sharp Point Drive, Fort Collins, Colorado 80525</u> (Address of principal executive offices) (Zip Code)

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

> > Not Applicable

(Former name or former address, if changed since last report)

Item 12. Results of Operations and Financial Condition

On April 15, 2004 Advanced Energy Industries, Inc. (the "Company") announced via press release the Company's results for its three-month period ended March 31, 2004. A copy of the Company's press release is attached hereto as Exhibit 99.1.

The information in this Current Report on Form 8-K, including the exhibit, is furnished pursuant to Item 12 and shall not be deemed "filed" for purposes of

Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section. Furthermore, the information in this Current Report on Form 8-K, including the exhibit, shall not be deemed to be incorporated by reference into the filings of the Company under the Securities Act of 1933, as amended.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ADVANCED ENERGY INDUSTRIES, INC.

By: /s/ Michael El-Hillow

Name: Michael El-Hillow Title: Executive Vice President and Chief Financial Officer

Date: April 15, 2004

EXHIBIT INDEX

Exhibit No.

Description Exhibit No. Description 99.1 First Quarter 2004 Earnings Release dated April 15, 2004.

(ADVANCED ENERGY LOGO)

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FOR IMMEDIATE RELEASE

ADVANCED ENERGY REPORTS FIRST QUARTER 2004 RESULTS

RETURNS TO PROFITABILITY; POSTS NET INCOME OF \$6.9 MILLION

FORT COLLINS, COLO., APRIL 15, 2004 -- Advanced Energy Industries, Inc. (Nasdaq: AEIS) today reported financial results for the first quarter ended March 31, 2004. Advanced Energy offers a comprehensive suite of process-centered solutions critical to the production of semiconductors, flat panel displays, data storage products, architectural glass and other advanced product applications.

For the 2004 first quarter, revenues were \$104.5 million, up 86 percent from \$56.2 million for the first quarter of 2003, and up 40 percent compared to revenues of \$74.7 million for the fourth quarter of 2003.

Net income for the first quarter of 2004 was \$6.9 million or \$0.21 per diluted share, compared to a net loss of \$8.6 million in the first quarter of 2003, or \$0.27 per share. This compares to the fourth quarter 2003 net loss of \$2.4 million, or \$0.08 per share. Net income for the first quarter of 2004 includes approximately \$1.0 million in pretax gains resulting from the sale of certain marketable securities and the sale of the Company's thermal control business.

Doug Schatz, chairman and chief executive officer, said, "We experienced strong demand in all product groups, driven by continued momentum in the semiconductor capital equipment market and the market leading positions we have secured in high-growth semiconductor processing applications. This sales growth, coupled with the progress we've made to streamline our operating infrastructure, enabled us to achieve significant profitability in the first quarter. Our commitment to continued product innovation drives our ability to capture new opportunities and expand our market reach over a wide range of plasma-based processing applications.

"Our decision to move out of the thermal control business is part of our continued focus on core competencies. The wafer chiller line is based on highly differentiated technology, and we are not willing to devote the resources required to meaningfully promote and support these products given our target long-term operating model for sustainable profitability throughout industry cycles.

-more-

Advanced Energy Reports First Quarter 2004 Results - Page 2 April 15, 2004

"Towards the end of the first quarter, we were seeing indications that order patterns are leveling out as the market absorbs the recent surge in capital equipment purchases. We anticipate second quarter revenue in the \$107 million to \$115 million range and an earnings per share range of \$0.20 to \$0.25. We continue to make progress in our transition to a more variable operating model, targeting sustainable, ongoing improvements to our incremental operating margin," said Mr. Schatz.

FIRST QUARTER CONFERENCE CALL

Management will host a conference call today, Thursday, April 15, 2004 at 5:00 pm Eastern time to discuss Advanced Energy's financial results. You may access this conference call by dialing 888-713-4717. International callers may access the call by dialing 706-679-7720. For a replay of this teleconference, please call 706-645-9291, and enter the pass code 6231765. The replay will be available through Thursday, April 22, 2004. There will also be a webcast available at www.advanced-energy.com.

ABOUT ADVANCED ENERGY

Advanced Energy is a global leader in the development and support of technologies critical to high-technology manufacturing processes used in the production of semiconductors, flat panel displays, data storage products, compact discs, digital video discs, architectural glass, and other advanced product applications.

Leveraging a diverse product portfolio and technology leadership, Advanced Energy creates solutions that maximize process impact, improve productivity and lower the cost of ownership for its customers. This portfolio includes a comprehensive line of technology solutions in power, flow, thermal management, and plasma and ion beam sources for original equipment manufacturers (OEMs) and end-users around the world.

Advanced Energy operates in regional centers in North America, Asia and Europe and offers global sales and support through direct offices, representatives and distributors. Founded in 1981, Advanced Energy is a publicly held company traded on the Nasdaq National Market under the symbol AEIS. For more information, please visit our corporate website: www.advanced-energy.com.

SAFE HARBOR STATEMENT

This press release contains certain forward-looking statements, including the company's expectations with respect to Advanced Energy's financial results for the second quarter of 2004. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties include, but are not limited to: the volatility and cyclicality of the semiconductor and semiconductor capital equipment industries, Advanced Energy's ongoing ability to develop new products in a highly competitive industry characterized by increasingly rapid technological

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Advanced Energy Reports First Quarter 2004 Results - Page 3 April 15, 2004

changes, Advanced Energy's ability to successfully integrate acquired companies' operations, and other risks described in Advanced Energy's Form 10-K, Forms 10-Q and other reports and statements, as filed with the Securities and Exchange Commission. These reports and statements are available on the SEC's website at www.sec.gov . Copies may also be obtained from Advanced Energy's website at www.advanced-energy.com or contacting Advanced Energy's investor relations at 970-221-4670. The company assumes no obligation to update the information in this press release.

CONDENSED CONSOLIDATED INCOME STATEMENTS (UNAUDITED) (IN THOUSANDS EXCEPT PER SHARE DATA)

	Quarter Ended March 31, 2004 2003			
Sales	\$	104,487	\$	56,158
Cost of sales		66,073		38,208
Gross profit		38,414		17,950
Operating expenses:				
Research and development		13,410		13,367
Sales and marketing		8,037		8,330
General and administrative		5,767		4,529
Amortization of intangible assets		1,170		1,100
Restructuring charges		220		1,509
Total operating expenses		28,604		28,835
Income (loss) from operations		9,810		(10,885)
Other (expense) income, net		(1,155)		(2,750)
Income (loss) before income taxes		8,655		(13,635)
(Provision) Benefit for income taxes		(1,731)		5,045
Net Income (loss)	\$	6,924	 \$	(8,590)
		=======		
Basic net income (loss) per share:		0.21		
Diluted net income (loss) per share:	\$	0.21	\$	(0.27)
Basic weighted-average common shares outstanding		32,581		32,159
Diluted weighted-average common shares outstanding				32,159

Page 1

CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED) (IN THOUSANDS)

	Marc 20		December 31, 2003	
ASSETS				
Current Assets:				
Cash and cash equivalents	\$	43,996	\$	41,522
Marketable securities		84,045		93,691
Accounts receivable		79,013		61,927
Income tax receivable		465		151
Inventories		72,148		65,703
Other current assets		3,827		5,486
Total current assets		283,494		
Property and equipment, net		45,273		44,725
Deposits and other		6,306		5,630
Goodwill and intangibles, net		86,529		88,943
Demonstration and customer service equipment, net		4,266		3,934
Deferred debt issuance costs, net		2,765		3,019
Total assets		428,633		
LIABILITIES AND STOCKHOLDERS' EQUITY	==		==:	
Current Liabilities:				
Trade accounts payable	ć	33,072	Ċ	23 066
Other current liabilities	Ŷ	26,046		
Current portion of capital leases and senior borrowings		8,239		8,582
Accrued interest payable on convertible subordinated notes		1,810		2,460
Total current liabilities Long-term Liabilities:		69,167		62,324
Capital leases and senior borrowings		4,935		6,168
Deferred income tax liability, net		4,787		4,672
Convertible subordinated notes payable		187,718		187,718
Other long-term liabilities		2,095		2,015
Total long-term liabilities		199,535		
Total liabilities		268,702		262,897
Stockholders' equity		159,931		151,834
Total liabilities and stockholders' equity		428,633		

Page 2

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED) (IN THOUSANDS)

	Three Months 2004		Ended March 31, 2003		
NET CASH USED IN OPERATING ACTIVITIES	\$	(4,344)	\$	(4,579)	
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES		8,003		(5,460)	
NET CASH USED IN FINANCING ACTIVITIES		(1,588)		(1,981)	
EFFECT OF CURRENCY TRANSLATION ON CASH		403		134	
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS CASH AND EQUIVALENTS, beginning of period		2,474 41,522		(11,886) 70,188	
CASH AND EQUIVALENTS, end of period	\$ ====	43,996	\$ ===	58,302	

Page 3