

# FORM 4

[ ] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

OMB APPROVAL  
OMB Number: 3235-0287  
Estimated average burden  
hours per response... 0.5

### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or  
Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person *		2. Issuer Name and Ticker or Trading Symbol		5. Relationship of Reporting Person(s) to Issuer (Check all applicable)	
<b>GUILMART JAMES G</b>  (Last) (First) (Middle)  <b>1625 SHARP POINT DRIVE</b>  (Street)  <b>FORT COLLINS, CO US</b>  (City) (State) (Zip)		<b>ADVANCED ENERGY INDUSTRIES INC [ AEIS ]</b>  3. Date of Earliest Transaction (MM/DD/YYYY)  <b>4/14/2004</b>  4. If Amendment, Date Original Filed (MM/DD/YYYY)		_____ Director _____ 10% Owner <input checked="" type="checkbox"/> Officer (give title below) _____ Other (specify below) <b>SVP of Customer Operations</b>  6. Individual or Joint/Group Filing (Check Applicable Line)  <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person	

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Trans. Date	2A. Deemed Execution Date, if any	3. Trans. Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock								314	D	

**Table II - Derivative Securities Beneficially Owned ( e.g. , puts, calls, warrants, options, convertible securities)**

1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Employee Stock Option (right to buy)	\$36.5625						10/13/2000 <a href="#">(1)</a>	10/13/2009	Common Stock	10000		10000	D	
Employee Stock Option (right to buy)	\$43.6875						1/13/2001 <a href="#">(1)</a>	1/13/2010	Common Stock	2000		12000	D	
Employee Stock Option (right to buy)	\$60.75						7/13/2001 <a href="#">(1)</a>	7/13/2010	Common Stock	25000		37000	D	
Employee Stock Option (right to buy)	\$30.1875						10/11/2001 <a href="#">(1)</a>	10/11/2010	Common Stock	25000		62000	D	
Employee Stock Option (right to buy)	\$26.125						2/7/2002 <a href="#">(1)</a>	2/7/2011	Common Stock	4688		66688	D	
Employee Stock Option (right to buy)	\$28.55						4/11/2002 <a href="#">(1)</a>	4/11/2011	Common Stock	4688		71376	D	
Employee Stock Option (right to buy)	\$36.49						5/24/2002 <a href="#">(3)</a>	5/24/2011	Common Stock	500		71876	D	
Employee Stock Option (right to buy)	\$32.19						7/11/2002 <a href="#">(1)</a>	7/11/2011	Common Stock	4687		76563	D	
Employee Stock Option (right to buy)	\$18.00						10/10/2002 <a href="#">(1)</a>	10/10/2011	Common Stock	4687		81250	D	
Employee Stock Option (right to buy)	\$24.90						2/12/2003 <a href="#">(1)</a>	2/12/2012	Common Stock	10000		91250	D	
Employee Stock Option (right to buy)	\$38.55						4/16/2003 <a href="#">(1)</a>	4/16/2012	Common Stock	10000		101250	D	
Employee Stock Option (right to buy)	\$17.85						7/18/2003 <a href="#">(1)</a>	7/18/2012	Common Stock	10000		111250	D	

Table II - Derivative Securities Beneficially Owned ( e.g. , puts, calls, warrants, options, convertible securities)															
1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Employee Stock Option (right to buy)	\$7.70							10/17/2003 <a href="#">(1)</a>	10/17/2012	Common Stock	10000		121250	D	
Employee Stock Option (right to buy)	\$9.12							2/12/2004 <a href="#">(1)</a>	2/12/2013	Common Stock	5000		126250	D	
Employee Stock Option (right to buy)	\$7.61							4/16/2004 <a href="#">(1)</a>	4/16/2013	Common Stock	5000		131250	D	
Employee Stock Option (right to buy)	\$19.24							7/23/2004 <a href="#">(1)</a>	7/23/2013	Common Stock	5000		136250	D	
Employee Stock Option (right to buy)	\$22.52							10/15/2004 <a href="#">(1)</a>	10/15/2013	Common Stock	5000		141250	D	
Employee Stock Option (right to buy)	\$22.30							2/11/2005 <a href="#">(1)</a>	2/11/2014	Common Stock	3750		145000	D	
Employee Stock Option (right to buy)	\$20.81	4/14/2004		A		3750		4/14/2005 <a href="#">(1)</a>	4/14/2014	Common Stock	3750	\$20.81	148750 <a href="#">(2)</a>	D	

#### Explanation of Responses:

- (1) Stock options dated 10/13/1999, 01/13/2000, 07/13/2000, 10/11/2000, 02/07/2001, 04/11/2001, 07/11/2001, 10/10/2001, 02/12/2002, 04/16/2002, 07/18/2002, 10/17/2002, 02/12/2003, 04/16/2003, 07/23/2003, 10/15/2003, 02/11/2004 and 04/14/2004 are such that 1/4 of the shares become exercisable on the first anniversary following the date of grant, and the remaining shares become exercisable in equal increments each quarter for 3 years thereafter.
- (2) Mr. Guilmart has Employee Stock Options (right to buy) for a total of 148,750 shares of Common Stock.
- (3) Stock option dated May 24, 2001 is fully exercisable 1 year from the date of grant, which was May 24, 2002.


#### Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
GUILMART JAMES G 1625 SHARP POINT DRIVE FORT COLLINS, CO US			SVP of Customer Operations	

#### Signatures

Michael El-Hillow - Attorney-in-Fact

4/15/2004

 Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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