

# FORM 4

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

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

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

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

**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

**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)	\$19.24							7/23/2004 (1)	7/23/2013	Common Stock	40000		40000	D	
Employee Stock Option (right to buy)	\$22.30							2/11/2005 (1)	2/11/2014	Common Stock	3750		43750	D	
Employee Stock Option (right to buy)	\$20.81	4/14/2004		A		3750		4/14/2005 (1)	4/14/2014	Common Stock	3750	\$20.81	47500 (2)	D	

#### Explanation of Responses:

- (1) Stock options dated 07/23/2003, 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. McCulloch has Employee Stock Options (right to buy) for a total of 47,500 shares of Common Stock.

#### Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
MCCULLOCH LARRY 1625 SHARP POINT DRIVE FORT COLLINS, CO US			SVP and Chief Quality Officer	

#### 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.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.