

FORM 4

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

OMB APPROVAL
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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)		
SCHOLL BRENDA M			ADVANCED ENERGY INDUSTRIES INC [AEIS]			<input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> X Officer (give title below) <input type="checkbox"/> Other (specify below) SVP and GM Power Systems		
(Last) (First) (Middle) 1625 SHARP POINT DRIVE			3. Date of Earliest Transaction (MM/DD/YYYY) 4/14/2004					
(Street) FORT COLLINS, CO US			4. If Amendment, Date Original Filed (MM/DD/YYYY)			6. Individual or Joint/Group Filing (Check Applicable Line)		
(City) (State) (Zip)						<input checked="" type="checkbox"/> X 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								20292	D	
Common Stock								209728	I	By Spouse

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)	\$8.625							4/23/1998 (4)	4/23/2007	Common Stock	2100		2100	D	
Employee Stock Option (right to buy)	\$12.75							1/9/1999 (1)	1/9/2008	Common Stock	782		2882	D	
Employee Stock Option (right to buy)	\$28.1563							2/9/2000 (1)	2/9/2009	Common Stock	1000		3882	D	
Employee Stock Option (right to buy)	\$43.6875							1/13/2001 (1)	1/13/2010	Common Stock	2000		5882	D	
Employee Stock Option (right to buy)	\$26.125							2/7/2002 (1)	2/7/2011	Common Stock	1250		7132	D	
Employee Stock Option (right to buy)	\$28.55							4/11/2002 (1)	4/11/2011	Common Stock	1250		8382	D	
Employee Stock Option (right to buy)	\$36.49							5/24/2002 (5)	5/24/2011	Common Stock	1000		9382	D	
Employee Stock Option (right to buy)	\$32.19							7/11/2002 (1)	7/11/2011	Common Stock	1250		10632	D	
Employee Stock Option (right to buy)	\$18.00							10/10/2002 (1)	10/10/2011	Common Stock	1250		11882	D	
Employee Stock Option (right to buy)	\$24.90							2/12/2003 (1)	2/12/2012	Common Stock	6250		18132	D	
Employee Stock Option (right to buy)	\$38.55							4/16/2003 (1)	4/16/2012	Common Stock	6250		24382	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)	\$17.85							7/18/2003 (1)	7/18/2012	Common Stock	6250		30632	D	
Employee Stock Option (right to buy)	\$7.70							10/17/2003 (1)	10/17/2012	Common Stock	6250		36882	D	
Employee Stock Option (right to buy)	\$14.50							12/11/2003 (1)	12/11/2012	Common Stock	10000		46882	D	
Employee Stock Option (right to buy)	\$9.12							2/12/2004 (1)	2/12/2013	Common Stock	5000		51882	D	
Employee Stock Option (right to buy)	\$7.61							4/16/2004 (1)	4/16/2013	Common Stock	5000		56882	D	
Employee Stock Option (right to buy)	\$19.24							7/23/2004 (1)	7/23/2013	Common Stock	5000		61882	D	
Employee Stock Option (right to buy)	\$22.52							10/15/2004 (1)	10/15/2013	Common Stock	5000		66882	D	
Employee Stock Option (right to buy)	\$22.30							2/11/2005 (1)	2/11/2014	Common Stock	3750		70632	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	74382 (2)	D	
Employee Stock Option (right to buy)	\$20.81	4/14/2004		A		2500		4/14/2005 (1)	4/14/2014	Common Stock	2500	\$20.81	106000 (3)	I	By Spouse

Explanation of Responses:

- Stock options dated 01/09/1998, 02/09/1999, 01/13/2000, 02/07/2001, 04/11/2001, 07/11/2001, 10/10/2001, 02/12/2002, 04/16/2002, 07/18/2002, 10/17/2002, 12/11/2002, 02/12/2003, 04/16/2003, 07/23/2003, 10/15/2003, 2/11/2004 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.
- Mrs. Scholl has Employee Stock Options (right to buy) for a total of 74,382 shares of Common Stock.
- Mrs. Scholl has additional Employee Stock Options (right to buy) for a total of 106,000 shares, indirectly by spouse, of Common Stock with varying exercise prices and expiration dates.
- Stock option dated 04/23/1997 is such that 1/5 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 4 years thereafter.
- 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
SCHOLL BRENDA M 1625 SHARP POINT DRIVE FORT COLLINS, CO US			SVP and GM Power Systems	

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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