

OMB APPROVAL	
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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

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* <u>MCGIMPSEY THOMAS O</u> (Last) (First) (Middle) 1625 SHARP POINT DRIVE (Street) FORT COLLINS CO 80525 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>ADVANCED ENERGY INDUSTRIES INC [AEIS]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>EVP Gen Counsel & Corp Sec</u>
	3. Date of Earliest Transaction (Month/Day/Year) 02/15/2018	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

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

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction 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	02/15/2018		A	V	2,308 ⁽¹⁾	A	\$66.66	49,581	D	
Common Stock	02/15/2018		F		1,015 ⁽²⁾	D	\$66.66	48,566	D	
Common Stock	02/15/2018		A	V	1,355 ⁽³⁾	A	\$66.66	49,921	D	
Common Stock	02/15/2018		F		595 ⁽²⁾	D	\$66.66	49,326	D	
Common Stock	02/15/2018		A	V	5,423 ⁽⁴⁾	A	\$66.66	54,749	D	
Common Stock	02/15/2018		F		2,383 ⁽²⁾	D	\$66.66	52,366 ⁽⁵⁾	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction 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 (Month/Day/Year)		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: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date					

Explanation of Responses:

- These performance stock units were reported voluntarily 2/8/2016. Certain 2016 Revenue performance metrics were met under the LTI Plan and the shares were approved for a 2/15/2018 release by the Board of Directors.
- Payment of tax liability by withholding securities incident to vesting of performance stock units.
- These performance stock units were reported voluntarily 2/6/2017. Certain 2017 Revenue performance metrics were met under the LTI Plan and the shares were approved for a 2/15/2018 release by the Board of Directors.
- These performance stock units were reported voluntarily 2/6/2017. Certain 2017 EPS performance metrics were met under the LTI Plan and the shares were approved for a 2/15/2018 release by the Board of Directors.
- Represents 23,014 shares of Restricted Stock units and 11,259 shares of Performance Stock Units and 18,093 shares of common stock.

Remarks:

/s/ Thomas O. McGimpsey 02/20/2018

** 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 Number.