

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* WASSERMAN YUVAL			2. Issuer Name and Ticker or Trading Symbol ADVANCED ENERGY INDUSTRIES INC [AEIS]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) President & CEO		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 06/19/2017			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person		
1625 SHARP POINT DRIVE			4. If Amendment, Date of Original Filed (Month/Day/Year)					
(Street) FORT COLLINS CO 80525								
(City) (State) (Zip)								

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	06/19/2017		M		3,938 ⁽¹⁾	A	\$13.85	122,006	D	
Common Stock	06/19/2017		M		7,876 ⁽¹⁾	A	\$14.5	129,882	D	
Common Stock	06/19/2017		M		2,352 ⁽¹⁾	A	\$12.77	132,234	D	
Common Stock	06/19/2017		M		1,577 ⁽¹⁾	A	\$16.25	133,811	D	
Common Stock	06/19/2017		S		15,743 ⁽¹⁾	D	\$72.29	118,068 ⁽²⁾	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	(A)	(D)	Date Exercisable	Expiration Date						Title
Employee Stock Option (right to buy)	\$13.85	06/19/2017		M			3,938 ⁽¹⁾	07/20/2014	07/20/2020	Common Stock	3,938	\$0.00	0 ⁽³⁾	D	
Employee Stock Option (right to buy)	\$14.5	06/19/2017		M			7,876 ⁽¹⁾	10/26/2014	10/20/2020	Common Stock	7,876	\$0.00	0 ⁽⁴⁾	D	
Employee Stock Option (right to buy)	\$12.77	06/19/2017		M			2,352 ⁽¹⁾	10/27/2013	10/27/2019	Common Stock	2,352	\$0.00	0 ⁽⁵⁾	D	
Employee Stock Option (right to buy)	\$16.25	06/19/2017		M			1,577 ⁽¹⁾	04/20/2014	04/20/2020	Common Stock	1,577	\$0.00	0 ⁽⁶⁾	D	

Explanation of Responses:

- 1. Shares sold in accordance with 10b5-1 trading plan.
- 2. Represents 79,639 shares of Restricted Stock Units and 38,429 Performance Shares.

3. The option represents a right to purchase a total of 15,750 shares that became exercisable on 7/20/2014. As of the transaction date, the option is vested and zero options remain unexercised.
4. The option represents a right to purchase a total of 15,750 shares that became exercisable on 10/26/2014. As of the transaction date, the option is vested and zero options remain unexercised.
5. The option represents a right to purchase a total of 12,195 shares that became exercisable on 10/27/2013. As of the transaction date, the option is vested and zero options remain unexercised.
6. The option represents a right to purchase a total of 13,389 shares that became exercisable on 4/20/2014. As of the transaction date, the option is vested and zero options remain unexercised.

Remarks:

/s/ Thomas O. McGimpsey 06/20/2017
(Attorney-in-Fact)

** 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.