

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*			2. Issuer Name and Ticker or Trading Symbol			5. Relationship of Reporting Person(s) to Issuer (Check all applicable)		
<u>WASSERMAN UVAL</u>			<u>ADVANCED ENERGY INDUSTRIES INC [AEIS]</u>			<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)			6. Individual or Joint/Group Filing (Check Applicable Line)		
1625 SHARP POINT DRIVE			05/04/2018					
(Street)			4. If Amendment, Date of Original Filed (Month/Day/Year)					
FORT COLLINS CO 80525						<input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person		
(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	05/04/2018		M		930 ⁽¹⁾	A	\$12.77	141,929	D	
Common Stock	05/04/2018		M		3,938 ⁽¹⁾	A	\$15.65	145,867	D	
Common Stock	05/04/2018		M		2,361 ⁽¹⁾	A	\$16.25	148,228	D	
Common Stock	05/04/2018		M		3,938 ⁽¹⁾	A	\$14.52	152,166	D	
Common Stock	05/04/2018		M		7,876 ⁽¹⁾	A	\$12.44	160,042	D	
Common Stock	05/04/2018		M		11,813 ⁽¹⁾	A	\$9.51	171,855	D	
Common Stock	05/04/2018		M		8,500 ⁽¹⁾	A	\$11.02	180,355	D	
Common Stock	05/04/2018		M		13,171 ⁽¹⁾	A	\$18.77	193,526	D	
Common Stock	05/04/2018		M		3,013 ⁽¹⁾	A	\$14.21	196,539	D	
Common Stock	05/04/2018		S		8,345 ⁽¹⁾	D	\$61.22 ⁽²⁾	188,194	D	
Common Stock	05/04/2018		S		38,385 ⁽¹⁾	D	\$62.53 ⁽³⁾	149,809	D	
Common Stock	05/04/2018		S		8,810 ⁽¹⁾	D	\$62.96 ⁽⁴⁾	140,999 ⁽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	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Options (right to buy)	\$12.77	05/04/2018		M			930 ⁽¹⁾	10/27/2013	10/27/2019	Common Stock	930 ⁽¹⁾	\$0.00	0	D	
Stock Options (right to buy)	\$15.65	05/04/2018		M			3,938 ⁽¹⁾	02/16/2014	02/16/2020	Common Stock	3,938 ⁽¹⁾	\$0.00	0	D	
Stock Options (right to buy)	\$16.25	05/04/2018		M			2,361 ⁽¹⁾	04/20/2014	04/20/2020	Common Stock	2,361 ⁽¹⁾	\$0.00	0	D	
Stock Option (right to buy)	\$14.52	05/04/2018		M			3,938 ⁽¹⁾	02/15/2015	02/15/2021	Common Stock	3,938 ⁽¹⁾	\$0.00	0	D	
Stock Option (right to buy)	\$12.44	05/04/2018		M			7,876 ⁽¹⁾	07/22/2015	07/22/2021	Common Stock	7,876 ⁽¹⁾	\$0.00	0	D	
Stock Option (right to buy)	\$9.51	05/04/2018		M			11,813 ⁽¹⁾	10/26/2015	10/26/2021	Common Stock	11,813 ⁽¹⁾	\$0.00	0	D	
Stock Option (right to buy)	\$11.02	05/04/2018		M			8,500 ⁽¹⁾	01/03/2013	01/03/2022	Common Stock	8,500 ⁽¹⁾	\$0.00	0	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	Amount or Number of Shares				
Stock Option (right to buy)	\$18.77	05/04/2018		M			13,171 ⁽¹⁾	10/01/2017	01/01/2024	Common Stock	13,171 ⁽¹⁾	\$0.00	43,429	D	
Stock Options (right to buy)	\$14.21	05/04/2018		M			3,013 ⁽¹⁾	04/28/2015	04/28/2021	Common Stock	3,013 ⁽¹⁾	\$0.00	0	D	

Explanation of Responses:

- Shares exercised and sold in accordance with 10b5-1 trading plan.
- The price reported in Column 4 is an average price. These shares sold in multiple transactions at prices ranging from \$60.78 to \$61.71. The reporting person undertakes to provide to Advanced Energy, any security holder of Advanced Energy, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in this footnote.
- The price reported in Column 4 is an average price. These shares sold in multiple transactions at prices ranging from \$61.85 to \$62.85. The reporting person undertakes to provide to Advanced Energy, any security holder of Advanced Energy, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in this footnote.
- The price reported in Column 4 is an average price. These shares sold in multiple transactions at prices ranging from \$62.86 to \$63.13. The reporting person undertakes to provide to Advanced Energy, any security holder of Advanced Energy, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in this footnote.
- Represents 45,388 shares of Restricted Stock Units and 95,611 shares of common stock.

Remarks:

/s/ Thomas O. McGimpsey 05/08/2018
(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.