

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 * MCGIMPSEY THOMAS O (Last) (First) (Middle) 1595 WYNKOOP STREET, SUITE 800 (Street) DENVER, CO 80202 (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol ADVANCED ENERGY INDUSTRIES INC [AEIS] | 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) EVP & Chief Admin Officer |
| 3. Date of Earliest Transaction (MM/DD/YYYY) 3/3/2021 | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> 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 | | | |
| Common Stock | 3/3/2021 | | F | | 795 (1) | D | \$105.26 | 42028 (2) | 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 | | | | Date Exercisable | Expiration Date | | | | |

Explanation of Responses:

(1) Payment of tax liability by withholding securities incident to vesting of restricted stock units.

(2) Represents 9,605 shares of unvested restricted stock units and 32,423 shares of common stock.

| Reporting Owner Name / Address | Relationships | | | |
|--------------------------------------------------------------------------|---------------|-----------|---------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| MCGIMPSEY THOMAS O 1595 WYNKOOP STREET, SUITE 800 DENVER, CO 80202 | | | EVP & Chief Admin Officer | |

Signatures

/s/ Thomas O. McGimpsey

3/5/2021

**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.