ADVANCED ENERGY INDUSTRIES INC
Form SC 13G
March 11, 2011

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

SCHEDULE 13G
(Rule 13d-102)

Information Statement Pursuant to Rules 13d-1 and 13d-2
Under the Securities Exchange Act of 1934
(Amendment No.)*

Advanced Energy Industries, Inc.
(Name of Issuer)

Common Stock, par value $0.001 per share
(Title of Class of Securities)

007973100
(CUSIP Number)

March 1, 2011
Date of Event Which Requires Filing of the Statement

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[ ] Rule 13d-1(b)

[X] Rule 13d-1(c)

[ ] Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Citadel Advisors LLC

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
(a) o
(b) o

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 2,065,724 shares
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER See Row 6 above.

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
See Row 6 above.

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
o

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

4.8%1

12. TYPE OF REPORTING PERSON
IA; OO; HC

1The percentages reported in this Schedule 13G are based upon 43,450,710 shares of Common Stock outstanding as of March 1, 2011 (according to the Form 10-K filed by the issuer on March 2, 2011).

1. NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Citadel Holdings II LP

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
(a) o
(b) o

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 2,065,724 shares
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER See Row 6 above.

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
See Row 6 above.

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
o

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

4.8%

12. TYPE OF REPORTING PERSON
PN; HC

1. NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Citadel Investment Group II, L.L.C.

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
(a) o
(b) o

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION
Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 2,084,006 shares
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER See Row 6 above.

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
See Row 6 above.

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

4.8%

12. TYPE OF REPORTING PERSON
OO; HC

1. NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Kenneth Griffin

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP
(a) o
(b) o

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION
U.S. Citizen

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 2,084,006 shares
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER See Row 6 above.

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
See Row 6 above.

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
o

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

4.8%

12. TYPE OF REPORTING PERSON
IN; HC

Item 1(a) Name of Issuer
Advanced Energy Industries, Inc.

Item 1(b) Address of Issuer's Principal Executive Offices
1625 Sharp Point Drive, Fort Collins, Colorado 80525

Item 2(a) Name of Person Filing
This Schedule 13G is being jointly filed by Citadel Advisors LLC ("Citadel Advisors"), Citadel Holdings II LP ("CH-II"), Citadel Investment Group II, L.L.C. ("CIG-II") and Mr. Kenneth Griffin (collectively with Citadel Advisors, CH-II and CIG-II, the "Reporting Persons") with respect to shares of Common Stock of the above-named issuer (and/or options to purchase such shares) owned by Citadel Global Equities Master Fund Ltd., a Cayman Islands limited company ("CG"), PioneerPath Capital Ltd., a Cayman Islands limited company ("PPC"), Citadel Equity Fund Ltd., a Cayman Islands limited company ("CEF"), certain segregated accounts and Citadel Securities LLC, a Delaware limited liability company ("Citadel Securities").

Citadel Advisors is the portfolio manager for CG, PPC and CEF, and the investment manager for certain segregated accounts. CH-II is the managing member of Citadel Advisors. Citadel Holdings I LP, a Delaware limited partnership ("CH-I"), is the non-member manager of Citadel Securities. CIG-II is the general partner of CH-I and CH-II. Mr. Griffin is the President and Chief Executive Officer of, and owns a controlling interest in, CIG-II.

The filing of this statement shall not be construed as an admission that any of the Reporting Persons is the beneficial owner of any securities covered by the statement other than the securities actually owned by such person (if any).

Item 2(b) Address of Principal Business Office
The address of the principal business office of each of the Reporting Persons is c/o Citadel LLC, 131 S. Dearborn Street, 32nd Floor, Chicago, Illinois 60603.

Item 2(c) Citizenship
Each of Citadel Advisors and CIG-II is organized as a limited liability company under the laws of the State of Delaware. CH-II is organized as a limited partnership under the laws of the State of Delaware. Mr. Griffin is a U.S. citizen.

Item 2(d) Title of Class of Securities
Common Stock, $0.001 par value

Item 2(e) CUSIP Number
007973100

Item 3 If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:

(a) [__] Broker or dealer registered under Section 15 of the Exchange Act;

(b) [__] Bank as defined in Section 3(a)(6) of the Exchange Act;

(c) [__] Insurance company as defined in Section 3(a)(19) of the Exchange Act;

(d) [__] Investment company registered under Section 8 of the Investment Company Act;

(e) [__] An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);

(f) [__] An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);

(g) [__] A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);

(h) [__] A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;

(i) [__] A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;

(j) [__] Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please specify the type of institution: _____.

Item 4 Ownership

A. Citadel Advisors LLC

(a) Citadel Advisors may be deemed to beneficially own 2,065,724 shares of Common Stock.

(b) The number of shares Citadel Advisors may be deemed to beneficially own constitutes approximately 4.8% of the Common Stock outstanding.

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote: 0

(ii) shared power to vote or to direct the vote: 2,065,724

(iii) sole power to dispose or to direct the disposition of: 0

(iv) shared power to dispose or to direct the disposition of: 2,065,724

B. Citadel Holdings II LP

(a) CH-II may be deemed to beneficially own 2,065,724 shares of Common Stock.

(b) The number of shares CH-II may be deemed to beneficially own constitutes approximately 4.8% of the Common Stock outstanding.

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote: 0

(ii) shared power to vote or to direct the vote: 2,065,724

(iii) sole power to dispose or to direct the disposition of: 0

(iv) shared power to dispose or to direct the disposition of: 2,065,724

C. Citadel Investment Group II, L.L.C.

(a) CIG-II may be deemed to beneficially own 2,084,006 shares of Common Stock.

(b) The number of shares CIG-II may be deemed to beneficially own constitutes approximately 4.8% of the Common Stock outstanding.

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote: 0

(ii) shared power to vote or to direct the vote: 2,084,006

(iii) sole power to dispose or to direct the disposition of: 0

(iv) shared power to dispose or to direct the disposition of: 2,084,006

D. Kenneth Griffin

(a) Mr. Griffin may be deemed to beneficially own 2,084,006 shares of Common Stock.

(b) The number of shares Mr. Griffin may be deemed to beneficially own constitutes approximately 4.8% of the Common Stock outstanding.

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote: 0

(ii) shared power to vote or to direct the vote: 2,084,006

(iii) sole power to dispose or to direct the disposition of: 0

(iv) shared power to dispose or to direct the disposition of: 2,084,006

Item 5 Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than 5 percent of the class of securities, check the following x.

Item 6 Ownership of More than Five Percent on Behalf of Another Person

Not Applicable

Item 7 Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company

See Item 2 above

Item 8 Identification and Classification of Members of the Group

Not Applicable

Item 9 Notice of Dissolution of Group

Not Applicable

Item 10 Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Dated this 11th day of March, 2011.

CITADEL ADVISORS LLC

By: Citadel Holdings II LP,
its Managing Member

By: Citadel Investment Group II, L.L.C.,
its General Partner

By: /s/ John C. Nagel
John C. Nagel, Authorized Signatory

CITADEL HOLDINGS II LP

By: Citadel Investment Group II, L.L.C.,
its General Partner

By: /s/ John C. Nagel
John C. Nagel, Authorized Signatory

CITADEL INVESTMENT GROUP II, L.L.C.

By: /s/ John C. Nagel
John C. Nagel, Authorized Signatory

KENNETH GRIFFIN

By: /s/ John C. Nagel
John C. Nagel, attorney-in-fact*

*John C. Nagel is signing on behalf of Kenneth Griffin as attorney-in-fact pursuant to a power of attorney previously filed with the Securities and Exchange Commission on February 24, 2006, and hereby incorporated by reference herein. The power of attorney was filed as an attachment to a filing by Citadel Limited Partnership on Schedule 13G for Morgans Hotel Group Co.