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SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934  
(Amendment No. 1)\*

**Nano Nuclear Energy Inc.**

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(Name of Issuer)

**Common stock, par value \$0.0001 per share (the "Shares")**

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(Title of Class of Securities)

**63010H108**

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(CUSIP Number)

**12/31/2025**

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(Date of Event Which Requires Filing of this Statement)

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

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

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SCHEDULE 13G

CUSIP No. 63010H108

Names of Reporting Persons

1

Citadel Securities GP LLC

Check the appropriate box if a member of a Group (see instructions)

2

(a)

(b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

	Sole Voting Power
5	
Number of	0.00
Shares	Shared Voting Power
Beneficially	6
Owned by	758,771.00
Each	Sole Dispositive Power
Reporting	7
Person	0.00
With:	Shared Dispositive Power
8	
	758,771.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	758,771.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	<input type="checkbox"/>
11	Percent of class represented by amount in row (9)
	1.5 %
12	Type of Reporting Person (See Instructions)
	HC, OO

**Comment for Type of Reporting Person:** The percentages reported in this Schedule 13G are based upon 50,474,294 Shares outstanding as of December 16, 2025 (according to the issuer's Form S-3/A as filed with the Securities and Exchange Commission on December 23, 2025).

## SCHEDULE 13G

**CUSIP No.** 63010H108

1	Names of Reporting Persons
	Citadel Securities LLC
	Check the appropriate box if a member of a Group (see instructions)
2	<input type="checkbox"/> (a)
	<input type="checkbox"/> (b)
3	Sec Use Only
4	Citizenship or Place of Organization
	DELAWARE
	Sole Voting Power
5	
Number of	0.00
Shares	Shared Voting Power
Beneficially	6
Owned by	745,871.00
Each	Sole Dispositive Power
Reporting	7
Person	0.00
With:	Shared Dispositive Power
8	
	745,871.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	745,871.00

10 Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)  
  
11 Percent of class represented by amount in row (9)  
1.5 %  
12 Type of Reporting Person (See Instructions)  
BD, OO

## SCHEDULE 13G

CUSIP No. 63010H108

1 Names of Reporting Persons  
Citadel Securities Group LP  
Check the appropriate box if a member of a Group (see instructions)  
2  (a)  
 (b)  
3 Sec Use Only  
4 Citizenship or Place of Organization  
DELAWARE  
Sole Voting Power  
5 0.00  
Number of Shares Beneficially Owned by Each Reporting Person With:  
6 Shared Voting Power  
758,771.00  
7 Sole Dispositive Power  
0.00  
8 Shared Dispositive Power  
758,771.00

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
758,771.00  
10 Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)  
  
11 Percent of class represented by amount in row (9)  
1.5 %  
12 Type of Reporting Person (See Instructions)  
HC, PN

## SCHEDULE 13G

CUSIP No. 63010H108

1 Names of Reporting Persons  
Citadel Advisors LLC

Check the appropriate box if a member of a Group (see instructions)

2

(a)

(b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Sole Voting Power

5

0.00

Number of  
Shares

Shared Voting Power

Beneficially 6

Owned by

1,199,443.00

Each

Sole Dispositive Power

Reporting 7

Person

0.00

With:

Shared Dispositive Power

8

1,199,443.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

1,199,443.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10

Percent of class represented by amount in row (9)

11

2.4 %

Type of Reporting Person (See Instructions)

12

IA, HC, OO

## SCHEDULE 13G

CUSIP No. 63010H108

Names of Reporting Persons

1

Citadel Advisors Holdings LP

Check the appropriate box if a member of a Group (see instructions)

2

(a)

(b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Sole Voting Power

5

0.00

Number of  
Shares

Shared Voting Power

Beneficially 6

Owned by

1,199,443.00

Each

Sole Dispositive Power

Reporting 7

Person

0.00

With:

Shared Dispositive Power

8

1,199,443.00

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
 1,199,443.00  
 Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10   
 Percent of class represented by amount in row (9)

11 2.4 %  
 Type of Reporting Person (See Instructions)

12 HC, PN

**SCHEDULE 13G**

**CUSIP No.** 63010H108

1 Names of Reporting Persons  
 Citadel GP LLC  
 Check the appropriate box if a member of a Group (see instructions)

2  (a)  
 (b)

3 Sec Use Only

4 Citizenship or Place of Organization  
 DELAWARE

5 Sole Voting Power  
 0.00

Number of Shares Beneficially Owned by Each Reporting Person With:

6 Shared Voting Power  
 1,199,443.00

7 Sole Dispositive Power  
 0.00

8 Shared Dispositive Power  
 1,199,443.00

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
 1,199,443.00  
 Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10   
 Percent of class represented by amount in row (9)

11 2.4 %  
 Type of Reporting Person (See Instructions)

12 HC, OO

**SCHEDULE 13G**

**CUSIP No.** 63010H108

Names of Reporting Persons

1

Kenneth Griffin

Check the appropriate box if a member of a Group (see instructions)

2

(a)

(b)

3

Sec Use Only

Citizenship or Place of Organization

4

UNITED STATES

Sole Voting Power

5

0.00

Number of Shares

Shared Voting Power

Beneficially 6

Owned by 1,958,214.00

Each Reporting Person

Sole Dispositive Power

7

0.00

With:

Shared Dispositive Power

8

1,958,214.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

1,958,214.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10

Percent of class represented by amount in row (9)

11

3.9 %

Type of Reporting Person (See Instructions)

12

HC, IN

SCHEDULE 13G

Item 1.

Name of issuer:

(a)

Nano Nuclear Energy Inc.

Address of issuer's principal executive offices:

(b)

10 Times Square, 30th Floor, New York, NY, 10018

Item 2.

Name of person filing:

This Schedule 13G is being jointly filed by Citadel Securities GP LLC ("CSGP"), Citadel Securities LLC ("Citadel Securities"), Citadel Securities Group LP ("CALC4"), Citadel Advisors LLC ("Citadel Advisors"), Citadel Advisors Holdings LP ("CAH"), Citadel GP LLC ("CGP"), and Mr. Kenneth Griffin (collectively with CSGP, Citadel Securities, CALC4, Citadel Advisors, CAH, and CGP, the "Reporting Persons") with respect to the Shares of the above-named issuer owned by Citadel Securities, Citadel Securities Principal Strategies LLC, a Delaware limited liability company ("CSP"), and Citadel CEMF Investments Ltd., a Cayman Islands limited company ("CCIL"). Such owned Shares may include other instruments exercisable for or convertible into Shares. CALC4 is the non-member manager of Citadel Securities and CSP. CSGP is the general partner of CALC4. Citadel Advisors is the portfolio manager for CCIL. CAH is the sole member of Citadel Advisors. CGP is the general partner of CAH. Mr. Griffin is the President and Chief Executive Officer of CGP, and owns a controlling interest in CGP and CSGP. 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).

(b)

Address or principal business office or, if none, residence:

The address of each of the Reporting Persons is 830 Brickell Plaza, Miami, Florida 33131.

Citizenship:

- (c) Each of CSGP, Citadel Securities, Citadel Advisors, and CGP is organized as a limited liability company under the laws of the State of Delaware. Each of CALC4 and CAH is organized as a limited partnership under the laws of the State of Delaware. Mr. Griffin is a U.S. citizen.

Title of class of securities:

- (d) Common stock, par value \$0.0001 per share (the "Shares")

CUSIP No.:

- (e) 63010H108

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e)  An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:
- (k)  Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

- (a) 1. Citadel Securities LLC may be deemed to beneficially own 745,871 Shares. 2. Each of Citadel Securities Group LP and Citadel Securities GP LLC may be deemed to beneficially own 758,771 Shares. 3. Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC may be deemed to beneficially own 1,199,443 Shares. 4. Mr. Griffin may be deemed to beneficially own 1,958,214 Shares.

Percent of class:

- (b) 1. The number of Shares that Citadel Securities LLC may be deemed to beneficially own constitutes 1.5% of the Shares outstanding. 2. The number of Shares that each of Citadel Securities Group LP and Citadel Securities GP LLC may be deemed to beneficially own constitutes 1.5% of the Shares outstanding. 3. The number of Shares that each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC may be deemed to beneficially own constitutes 2.4% of the Shares outstanding. 4. The number of Shares that Mr. Griffin may be deemed to beneficially own constitutes 3.9% of the Shares outstanding. %

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

(i) Sole power to vote or to direct the vote:

1. Citadel Securities LLC: 0 2. Each of Citadel Securities Group LP and Citadel Securities GP LLC: 0 3. Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC: 0 4. Mr. Griffin: 0

(ii) Shared power to vote or to direct the vote:

1. Citadel Securities LLC: 745,871 2. Each of Citadel Securities Group LP and Citadel Securities GP LLC: 758,771 3. Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC: 1,199,443 4. Mr. Griffin: 1,958,214

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

1. Citadel Securities LLC: 0 2. Each of Citadel Securities Group LP and Citadel Securities GP LLC: 0 3. Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC: 0 4. Mr. Griffin: 0

(iv) Shared power to dispose or to direct the disposition of:

1. Citadel Securities LLC: 745,871 2. Each of Citadel Securities Group LP and Citadel Securities GP LLC: 758,771 3. Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC: 1,199,443 4. Mr. Griffin: 1,958,214

Item 5. Ownership of 5 Percent or Less of a Class.

Ownership of 5 percent or less of a class

Item 6. Ownership of more than 5 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 or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

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, other than activities solely in connection with a nomination under ?? 240.14a-11.

## SIGNATURE

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

Citadel Securities GP LLC

Signature: /s/ Seth Levy

Name/Title: Seth Levy, Authorized Signatory

Date: 02/17/2026

Citadel Securities LLC

Signature: /s/ Seth Levy

Name/Title: Seth Levy, Authorized Signatory

Date: 02/17/2026

Citadel Securities Group LP

Signature: /s/ Seth Levy

Name/Title: Seth Levy, Authorized Signatory

Date: 02/17/2026

Citadel Advisors LLC

Signature: /s/ Seth Levy

Name/Title: Seth Levy, Authorized Signatory

Date: 02/17/2026

Citadel Advisors Holdings LP

Signature: /s/ Seth Levy

Name/Title: Seth Levy, Authorized Signatory

Date: 02/17/2026

Citadel GP LLC

Signature: /s/ Seth Levy

Name/Title: Seth Levy, Authorized Signatory

Date: 02/17/2026

Kenneth Griffin

Signature: /s/ Seth Levy

Name/Title: Seth Levy, attorney-in-fact\*

Date: 02/17/2026

**Comments accompanying signature:** \* Seth Levy 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, and hereby incorporated by reference herein. The power of attorney was filed as an attachment to a filing by Citadel Advisors LLC on Schedule 13G for Allakos Inc. on October 13, 2023.