

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

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NANO NUCLEAR ENERGY INC.

(Exact Name of Registrant as Specified in its Charter)

Nevada

(State or other jurisdiction of
incorporation or organization)

4911

(Primary Standard Industrial
Classification Code Number)

88-0861977

(I.R.S. Employer
Identification No.)

**10 Times Square, 30th Floor
New York, New York 10018
(212) 634-9206**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**James Walker
Chief Executive Officer
Nano Nuclear Energy Inc.
10 Times Square, 30th Floor
New York, New York 10018
(212) 634-9206**

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

with copies to:

**Richard I Anslow, Esq.
Lawrence A. Rosenbloom, Esq.
Ellenoff Grossman & Schole LLP
1345 Avenue of the Americas
New York, NY 10105
Phone: (212) 370-1300
Fax: (212) 370-7889**

**Joseph M. Lucosky, Esq.
Scott E. Linsky, Esq.
Lucosky Brookman LLP
101 Wood Avenue South, 5th Floor
Woodbridge, NJ 08830
Tel. No.: (732) 395-4400
Fax No.: (732) 395-4401**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. **333-282750**

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registration Statement shall become effective upon filing with the Securities and Exchange Commission in accordance with Rule 462(b) under the Securities Act of 1933, as amended.



EXPLANATORY NOTE

This Registration Statement on Form S-1 is being filed by Nano Nuclear Energy Inc., a Nevada corporation (the “Registrant”), pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and General Instruction V to Form S-1. This Registration Statement relates to the Registrant’s Registration Statement on Form S-1, as amended (File No. 333-282750), initially filed by the Registrant on October 21, 2024 and declared effective by the Securities and Exchange Commission (the “SEC”) on October 23, 2024 (the “Base Registration Statement”).

This Registration Statement covers the registration of an additional \$6,000,000 worth of units (“Units”), with each Unit consisting of one (1) share of the Registrant’s common stock (the “Common Stock”) and a warrant to purchase up to one-half (0.5) of a share of Common Stock (the “Warrants”), or an additional \$6,900,000 worth of Units and associated shares of Common Stock and Warrants if the representative of the underwriters exercises its over-allotment option in full. As described in the Base Registration Statement, the Units have no stand-alone rights and will not be certificated or issued as stand-alone securities, and the shares of Common Stock and the Warrants underlying the Units are immediately separable and will be issued separately in the offering.

The required opinions of counsel and related consents and accountant’s consent are attached hereto and filed herewith. Pursuant to Rule 462(b), the contents of the Base Registration Statement, including the exhibits thereto, are incorporated by reference into this Registration Statement.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits.

The list of exhibits following the signature page of this registration statement is incorporated by reference herein.

Exhibit Number	Description of Document
5.1*	Opinion of Parsons Behle & Latimer as to the legality of the securities being registered
23.1*	Consent of WithumSmith+Brown, PC, Independent Registered Public Accounting Firm
23.2*	Consent of Parsons Behle & Latimer (included in Exhibit 5.1)
107*	Filing Fee Table

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York on October 23, 2024.

Nano Nuclear Energy Inc.

By: /s/ James Walker
Name: James Walker
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Jay Jiang Yu</u> Jay Jiang Yu	Chairman of the Board and President	October 23, 2024
<u>/s/ James Walker</u> James Walker	Chief Executive Officer and Director (Principal Executive Officer)	October 23, 2024
<u>/s/ Jaisun Garcha</u> Jaisun Garcha	Chief Financial Officer and Secretary (Principal Accounting Officer)	October 23, 2024
<u>/s/ Tsun Yee Law</u> Dr. Tsun Yee Law	Independent Director	October 23, 2024
<u>/s/ Diane Hare</u> Diane Hare	Independent Director	October 23, 2024
<u>/s/ Kenny Yu</u> Dr. Kenny Yu	Independent Director	October 23, 2024

October 23, 2024

Board of Directors
Nano Nuclear Energy Inc.
10 Times Square, 30th Floor
New York, New York 10018

Re: Nano Nuclear Energy Inc. – Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as Nevada counsel to Nano Nuclear Energy Inc., a Nevada corporation (the “Company”), in a public offering pursuant to the Registration Statement on Form S-1 initially filed with, and declared effective on October 23, 2024 by, the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Act”), (the “**Base Registration Statement**”), and a Registration Statement on Form S-1 (the “**New Registration Statement**”), effective automatically upon filing. Pursuant to the New Registration Statement, the following additional securities are to be offered, comprising of: (i) units (the “**Units**”) consisting of up to an aggregate of approximately \$6,000,000 of shares of common stock, par value \$0.0001 per share (the “**Common Stock**”) and 2024 B common stock purchase warrants to purchase up to an aggregate of approximately \$3,000,000 of shares of Common Stock (the “**Warrants**” and the shares of Common Stock underlying the Warrants, the “**Warrant Shares**”); (ii) up to an aggregate of approximately \$900,000 of shares of Common Stock and Warrants to purchase up to an aggregate of approximately \$450,000 of shares of Warrant Shares to cover over-allotments; and (iii) a representative’s warrant to purchase up to approximately \$345,000 of shares of Common Stock (the “**Representative Warrant**” and the shares of Common Stock underlying the Representative Warrant, the “**RW Shares**”), to be issued to The Benchmark Company LLC (the “**Representative**”) pursuant to an underwriting agreement entered into by and between the Company and the Representative on October 23, 2024 (which agreement is governed by New York law, the “**Underwriting Agreement**”). The Units, Common Stock, Warrants, Warrant Shares, and Representative Warrant and RW Shares are collectively referred to herein as the “**Securities**”.

The Securities are to be offered and sold in the manner described in the Registration Statement and the related prospectus included therein (the “**Prospectus**”). Capitalized terms used in this opinion letter and not otherwise defined in this opinion letter shall have their respective meanings ascribed to them in the Underwriting Agreement.

We have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein only as to the Nevada Revised Statutes (the “**NRS**”). In that regard, we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction or, in the case of Nevada, any other laws, or as to any matters of municipal law or the laws of any local agencies within any state.

For purposes of rendering the opinions set forth below, we have examined such documents and reviewed such questions of law as we have considered necessary and appropriate for the purposes of our opinion including (i) the Registration Statement, including the exhibits filed therewith (inclusive of the Underwriting Agreement, the Warrant Agent Agreement associated with the Warrant and the Representative Warrant), (ii) the Prospectus, (iii) the Company's amended and restated articles of incorporation, (iv) the Company's amended and restated bylaws, (v) the corporate resolutions and other actions of the Company that authorize and provide for the filing of the Registration Statement, and we have made such other investigation as we have deemed appropriate. We have not independently established any of the facts so relied on.

The purpose of our professional engagement was not to establish or confirm the factual matters set forth in the Registration Statement, and we have not undertaken any obligation to verify independently any of the factual matters set forth in the Registration Statement. Moreover, many of the determinations required to be made in the preparation of the Registration Statement involve matters of a non-legal nature.

Our knowledge of the Company and its legal and other affairs is limited by the scope of our engagement, which scope includes the delivery of this opinion letter. We do not represent the Company with respect to all legal matters or issues. The Company may employ other independent counsel and, to our knowledge, handles certain matters and issues without the assistance of independent counsel.

In our examination of the foregoing, we have assumed, without independent investigation or verification: (i) the genuineness of all signatures on all agreements, instruments and other documents submitted to us; (ii) the legal capacity and authority of all persons or entities executing all agreements, instruments and other documents submitted to us; (iii) the authenticity and completeness of all agreements, instruments, corporate records, certificates and other documents submitted to us as originals; (iv) that all agreements, instruments, corporate records, certificate and other documents submitted to us as certified, electronic, facsimile, conformed, photostatic or other copies conform to authentic originals thereof, and that such originals are authentic and complete; (v) the due authorization, execution and delivery of all instruments, agreements, and other documents by the parties thereto other than the Company; (vi) that the statements contained in the certificates and comparable documents of public officials, officers and representatives of the Company and other persons on which we have relied for the purposes of this letter are true and correct; and (vii) that the officers and directors of the Company have properly exercised their fiduciary duties. We have assumed that the issuance and sale of the Securities by the Company will not violate or constitute a default or breach under (a) any agreement or instrument to which the Company is subject, (b) any law, rule or regulation to which the Company is subject other than the NRS, (c) any judicial or regulatory order or decree of any governmental authority, or (d) any consent, approval, license, authorization or validation of, or filing, recording or registration with any governmental authority.

We have further assumed that: (i) the Registration Statement remains effective under the Securities Act and complies with all applicable laws at the time the Securities are issued as contemplated by the Registration Statement and the Underwriting Agreement; (ii) the Securities will be sold in compliance with the applicable provisions of the Securities Act and the securities or Blue Sky Laws of various states and in the manner stated in the Registration Statement and any applicable prospectus; and (iii) the Securities do not exceed, at the time of issuance, the authorized but unissued shares of Common Stock. Whenever these opinions are qualified by the phrase “actual knowledge” with respect to the existence of facts, it is intended to indicate that during the course of our representation of the Company no information has come to the attention of our attorneys who have worked on this opinion letter which would give us actual knowledge of the existence of such facts.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof:

1. Units. The Units have been duly authorized by all requisite corporate action of the Company. With respect to the Common Stock, we express no opinion to the extent that future issuances of the Common Stock may cause the number of shares of Common Stock underlying the Units, to exceed the number that remain authorized but unissued.

2. Common Stock. When the Registration Statement becomes effective under the Act and when the offering is completed as contemplated by the Registration Statement, the shares of Common Stock underlying the Units will be duly authorized, validly issued, fully paid and non-assessable.

3. Warrants. The Warrants have been duly authorized by all requisite corporate action of the Company.

4. Warrant Shares: When the Registration Statement becomes effective under the Act and upon due exercise of the Warrants, the Warrant Shares will be duly authorized, validly issued, fully paid and non-assessable.

5. Representative Warrant. The Representative Warrant has been duly authorized by all requisite corporate action of the Company.

6. RW Shares: When the Registration Statement becomes effective under the Act and upon due exercise of the Representative Warrant, the RW Shares will be validly issued, duly authorized, fully paid and non-assessable.

No opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement. In connection with this opinion letter, we have relied on oral or written statements and representations of officers or other representatives of the Company and others. Our knowledge of the Company and its legal and other affairs is limited by the scope of our engagement, which scope includes the delivery of this opinion letter. We do not represent the Company with respect to all legal matters or issues. The Company may employ other independent counsel and, to our knowledge, handles certain matters and issues without the assistance of independent counsel.

This opinion letter is given as of the date hereof. We assume no obligation to advise you of changes that may hereafter be brought to our attention.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption “Legal Matters” in the Prospectus. In giving such permission, we do not admit hereby that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules and regulations of the Commission thereunder. This opinion is expressed as of the date hereof, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable law.

Sincerely,

PARSONS BEHLE & LATIMER

Consent of Independent Registered Public Accounting Firm

We hereby consent to the use in the Prospectus constituting a part of this Registration Statement on Form S-1 of Nano Nuclear Energy Inc. of our report dated January 30, 2024, relating to the consolidated financial statements of Nano Nuclear Energy, Inc., which is contained in that Prospectus. We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ WithumSmith+Brown, PC

New York, New York
October 23, 2024

Calculation of Filing Fee Table

Form S-1
(Form Type)

NANO NUCLEAR ENERGY INC.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

<u>Security Type</u>	<u>Security Class Title⁽¹⁾</u>	<u>Fee Calculation or Carry Forward Rule</u>	<u>Proposed Maximum Aggregate Offering Price⁽²⁾</u>	<u>Fee Rate</u>	<u>Amount of Registration Fee</u>	
Fees to be Paid	Equity	Units, with each unit consisting of one (1) share of common stock, par value \$0.0001 per share ("Common Stock"), and a warrant to purchase up to one-half (0.5) of a share of Common Stock ("Warrants")	457(o)	\$ 6,900,000.00 ⁽³⁾	0.00015310	\$ 1,056.39
	Equity	Common Stock, par value \$0.0001 per share, included as part of the Units	457(o)	Included within above Units.	—	—
	Other	Warrants to purchase up to one-half (0.5) Common Stock, included as part of the Units	457(o) and 457(g)	Included within above Units.	—	—
	Equity	Common Stock issuable upon exercise of the Warrants included as part of the Units	457(o)	\$ 3,450,000	0.00015310	\$ 528.20
	Other	Representative's Warrant ⁽⁴⁾	457(g)	—	—	—
	Equity	Common Stock issuable upon exercise of the Representative's Warrant ⁽⁵⁾	457(o)	\$ 431,250	0.00015310	\$ 66.02
		Total Offering Amount		\$ 10,781,250		\$ 1,650.61
		Total Fees Previously Paid				—
		Net Fee Due				\$ 1,650.61

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "**Securities Act**"), the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of computing the registration fee in accordance with Rule 457(o) under the Securities Act. Includes the Common Stock issuable upon exercise of the Warrants included as part of the Units, the Common Stock issuable upon exercise of the Representative's Warrant, and the offering price attributable to additional common stock and/or Warrants that the underwriter has the option to purchase to cover over-allotments, if any.

(3) Includes up to an additional 15% of Units sold in the offering to cover over-allotments, if any.

(4) No fee required pursuant to Rule 457(g) under the Securities Act.

(5) Represents a warrant to purchase a number of securities equal to 5% of the shares of common stock sold in this offering, including the underwriter's over-allotment option, at an exercise price equal to 125% of the assumed public offering price per Unit.