

Nano Nuclear Energy Inc.
1411 Broadway, 38th Floor
New York, New York 10018

VIA EDGAR

January 30, 2024

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Energy & Transportation
100 F Street, NE
Washington, D.C. 20549

Attention: Joseph Klinko
Karl Hiller
Cheryl Brown
Karina Dorin

**Re: Nano Nuclear Energy Inc.
Draft Registration Statement on Form S-1
Submitted October 10, 2023
CIK 0001923891**

Ladies and Gentlemen:

Nano Nuclear Energy Inc. (the “**Company**,” “**we**,” “**our**” or “**us**”) hereby transmits the Company’s responses to the comment letter received from the staff (the “**Staff**”) of the U.S. Securities and Exchange Commission (the “**Commission**”) on November 6, 2023, relating to the Company’s Draft Registration Statement on Form S-1, submitted by the Company to the Commission on October 10, 2023 (the “**Draft Registration Statement**”).

For the Staff’s convenience, we have repeated below the Staff’s comments in bold and have followed each comment with the Company’s response. In response to the Staff’s comments, the Company is submitting via Edgar Amendment No. 1 to the Draft Registration Statement (the “**Amendment No. 1**”) with this response letter.

Draft Registration Statement on Form S-1 submitted October 10, 2023

Prospectus Summary

Overview, page 1

- We note your disclosure on page 11 that you anticipate it will take several years for you to commence generating meaningful revenues. Please revise your disclosure to describe in more detail your plan of operations for the next twelve months, including the anticipated timeline and expenditures for these events. Also describe in more detail your plans for providing nuclear service support and consultation services. In that regard, we note your disclosure that it represents your most near-term revenue generating opportunity and your disclosure elsewhere that you have already identified several nuclear business services and consultancy providers, which have been assessed as potentially suitable for acquisition.**

Response: In response to the Staff’s comment, we have revised our disclosures under the “*Prospectus Summary*” section on pages 1-3, “*Risk Factor*” section on pages 12 and 16, “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” section on pages 37-38, and “*Business*” section on pages 42-43, of Amendment No.1.

2. We note various references to your collaborations, partnerships and coordinations, including your collaboration with INL, academic partnerships, and coordinations with DOE and INL. Please describe such arrangements in greater detail and, to the extent there are any agreements governing such arrangements, please file them as exhibits to your registration statement.

Response: In response to the Staff's comment, we have revised our disclosures under "*Material Agreements*" section on pages 59 and 60 of Amendment No.1 and elsewhere, and included documents that qualify as material definitive agreements as exhibits to our registration statement.

Our Vision, Market Opportunity and Key Government Support, page 2

3. We note your disclosure that you believe you are differentiated from your competitors in many ways, including, among other things, secured government contracts. Please revise to disclose material terms of these contracts in the prospectus and file them as exhibits to your registration statement, or explain why you believe that filing such contracts is not required. Refer to Item 601(b) of Regulation S-K.

Response: In response to the Staff's comment, we have revised our disclosures under "*Prospectus Summary*" section on page 3 and "*Material Agreements*" section on pages 59 and 60 of Amendment No.1 and elsewhere, and included the documents that qualify as material definitive agreements as exhibits to our registration statement.

Risk Factors, page 11

4. We note that pursuant to a subscription agreement signed in the nine months ended June 30, 2023, a subscriber purchased 2,000,000 shares of common stock and has a put right. Please revise to include a risk factor to address any risks associated with the exercise of this put right.

Response: In response to the Staff's comment, we have revised our disclosures to include a risk factor to address any risks associated with the exercise of this put right under "*Prospectus Summary*" section on page 6, "Risk Factor" section on page 19, "*Principal Stockholder*" section on page 78, and "*Description of Capital Stock*" section on page 80, of Amendment No.1.

Cautionary Note Regarding Forward-Looking Statements, page 31

5. Please note that Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933 do not apply to initial public offerings. Accordingly, please revise to remove these references.

Response: In response to the Staff's comment, we have revised our disclosures under "*Cautionary Note Regarding Forward-Looking Statements*" section on page 32 of Amendment No.1.

Use of Proceeds, page 32

6. We note your disclosure regarding your use of proceeds for the research and development of products and technology, including design optimization, test work and scoping studies. If known, please revise to disclose the approximate amount of proceeds intended to be used for each purpose you identify. If the anticipated proceeds will not be sufficient to accomplish all the proposed purposes, please disclose the amounts and sources of other funds needed.

Response: In response to the Staff's comment, we have revised our disclosures under "*Use of Proceeds*" section on page 33 of Amendment No.1.

Management’s Discussion and Analysis
Factors and Trends Affecting Our Business and Results of Operations, page 36

7. We note your disclosures on pages 15, 37, and 53 referencing opportunities that would provide “immediate revenue” for the company, including “several nuclear business services and consultancy providers” you have assessed as “potentially suitable for acquisition,” and “expansion potential” to provide “in-house expertise, at greatly reduced costs;” also on page 2 of having “secured government contracts and [a] world class team.”

Please revise these disclosures as necessary to clarify the extent and status of any negotiations and plans for specific acquisitions, or to clarify if there are none. If you have any tentative agreements for acquisitions of specific businesses, identify the company or business and counterparties, describe the nature and scope of its operations, the expected amount and form of purchase consideration, and any uncertainties governing the likelihood of completion and the expected timeframe.

Response: In response to the Staff’s comment, we have revised our disclosures under “*Risk Factor*” section on page 16, “*Management’s Discussion and Analysis - Factors and Trends Affecting Our Business and Results of Operations*” section on page 38, “*Business*” section on page 53, and elsewhere as applicable, of Amendment No.1.

Business, page 42

8. Please revise this section to provide a clear description of the current status of any products, facilities and services that you offer or plan to offer. For example, please clarify the current design and/or development stage of your micro nuclear reactor business and whether a working prototype has been created, the status of your submissions to the DOE and/or NRC regarding your HALEU Fuel Fabrication Business, whether you have commenced scoping and cost estimation work for your fuel fabrication facility, and whether you have any agreements relating to the site identified for your fuel fabrication facility and the several nuclear business services and consultancy providers that you have identified and assessed as potentially suitable for acquisition.

Response: In response to the Staff’s comment, we have revised our disclosures under “*Prospectus Summary*” section on pages 1-3, and “*Business*” section on pages 42-43 and elsewhere as applicable, of Amendment No.1.

The U.S. Nuclear Energy Market, page 43

9. With respect to each statement attributed to industry publications and reports, please revise to disclose the title and year of publication of such reports.

Response: In response to the Staff’s comment, we have revised our disclosures under the “*Business*” section on pages 43-44, of Amendment No.1.

Prospectus Summary
Our Vision, Market Opportunity and Key Government Support, page 44

10. We note your disclosure that receiving no external support will not inhibit you from advancing your research, business or technology, and your investor base includes capital raised from industry professions that found your company to have enormous potential. Please revise to ensure your disclosure here and under Prospectus Summary is balanced and gives equal prominence to the risks and challenges you face. For example, you should address that your limited operating history and early stage of business makes an evaluation of your business and prospects very difficult, you have a new and unproven technology model and will need to raise substantial amounts of additional capital to implement your business plans. We also note you disclose that you have secured important high placed government contacts. Please explain how this benefits your plan of operations and provide balancing disclosure, as applicable.

Response: In response to the Staff’s comment, we have revised our disclosures under “*Prospectus Summary*” section on pages 2-3, and “*Business*” section on pages 44-45, of Amendment No.1.

Management

Executive Officers, page 63

11. **Please revise to clarify Mr. Walker’s business experience during the past five years. Refer to Item 401(e)(1) of Regulation S-K. In addition, we note that your officers appear to have management, advisory or directorship positions with other companies and may allocate their time to other businesses. Please include an appropriately captioned risk factor to discuss, if true, that certain executive officers serve in their positions on a parttime basis and/or otherwise clarify the number of hours they have agreed to dedicate to the business affairs of your company. To the extent material, please also identify and describe any potential conflicts of interest that exist, or may exist, as a result of your executive officers’ outside business relationships.**

Response: In response to the Staff’s comment, we have revised our disclosures under “*Management - Executive Officers*” section on page 64, and “*Risk Factor*” section on page 18, of Amendment No.1.

Our Executive Advisory Board, page 65

12. **If material, please include disclosure that describes the role or function of the Executive Advisory Board, and indicates whether there are any rules or procedures governing this board. Please also disclose whether and how members of the advisory board are compensated.**

Response: In response to the Staff’s comment, we have revised our disclosures under “*Management - Our Executive Advisory Board*” section on page 69 of Amendment No.1.

Executive and Director Compensation, page 71

13. **Please provide director compensation information in the tabular format required by Item 402(r) of Regulation S-K.**

Response: In response to the Staff’s comment, we have revised our disclosures under “*Management - Executive and Director Compensation*” section on page 73 of Amendment No.1.

Certain Relationships and Related Party Transactions, page 77

14. **Please revise to provide all the information required by Item 404(d) of Regulation S-K and ensure you describe each related party transaction individually rather than on an aggregate basis.**

Response: In response to the Staff’s comment, we have revised our disclosures under “*Certain Relationships and Related Party Transactions*” section on page 79 of Amendment No.1.

Financial Statements, page F-1

15. **Please update your filing to include audited financial statements covering the fiscal year ended September 30, 2023 in any amendment filed on or after November 15, 2023, and prior to the effective date, consistent with Rule 8-08(b) of Regulation S-X.**

Response: In response to the Staff’s comment, we have included audited financial statements covering the fiscal year ended September 30, 2023 and updated financial information elsewhere as applicable in Amendment No.1.

Exhibits

16. **Please discuss the material terms of and file as exhibits to your registration statement any material agreements, including your exclusive license for high capacity HALEU fuel transportation basket design and your Strategic Partnership Project Agreement No. 23SP817, or tell us why you believe you are not required to do so. In addition, we note you have entered into a consulting agreement with each of your executive officers and directors, other than Mr. Yu, and a consulting agreement with I Financial Ventures Group LLC where Mr. Yu is the sole member and manager. Please file all executed consulting agreements as exhibits to the registration statement, or explain why you believe they are not required. Refer to Item 601(b) of Regulation S-K.**

Response: In response to the Staff's comment, we have revised our disclosures under "*Prospectus Summary*" section pages 1 and 5, "*Risk Factors*" section on pages 15 and 19, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" section on page 38, "*Business*" section on pages 42 and 52 and 56, of Amendment No.1. We further advise the Staff that we have included the Strategic Partnership Project Agreement No. 23SP817 and consulting agreements with our executive officers and independent director agreements with our independent directors as exhibits to Amendment No. 1. We further advise the Staff that while we believe we are not required to provide our consulting agreement with each member of our Executive Advisory Board under Item 601(b) of Regulation S-K, we included a standardized form of consulting agreement with our Executive Advisory Board members as they are uniform in structure with just varying terms and conditions.

General

17. **Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Please contact the staff member associated with the review of this filing to discuss how to submit the materials, if any, to us for our review.**

Response: In response to the Staff's comment, we respectfully advise the Staff that neither the Company nor anyone authorized by the Company has presented any written communications, as defined in Rule 405 under the Securities Act, to potential investors in reliance on Section 5(d) of the Securities Act. To the extent that any such written communications are presented to potential investors, the Company will supplementally provide copies to the Staff.

18. **We note your risk factor disclosure that your executive officers, directors, and principal stockholders will continue to have substantial control over your company after this offering and will be able to exercise a significant level of control over all matters requiring stockholder approval. Please advise whether you will be a controlled company under NYSE rules. If so, please include appropriate disclosure of this status on the prospectus cover page and Prospectus Summary. Please also disclose the corporate governance exemptions available to a controlled company and whether you intend to rely on these exemptions.**

Response: In response to the Staff's comment, we have revised our disclosures under the "*Risk Factor*" section on page 24 of Amendment No.1. We further respectfully advise the Staff that (i) the Company has switched its listing application from the NYSE American to the Nasdaq Capital Market and (ii) will not be a "controlled company" under the Nasdaq rules as there are no individual, group or company who will have more than 50% of the voting power of the Company following the initial public offering.

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We thank the Staff for its review of this response. Should you have any questions or require any additional information, please do not hesitate to contact our legal counsel, Lawrence A. Rosenbloom, Esq. of Ellenoff Grossman & Schole LLP, at lrosenbloom@egslp.com or by telephone at (212) 370-1300.

Very truly yours,

NANO NUCLEAR ENERGY INC.

By: /s/ James Walker

Name: James Walker

Title: Chief Executive Officer

cc: Lawrence A. Rosenbloom, Esq.