

REQUEST FOR INFORMATION (RFI)

DE-SOL-0008246

Base: April 13, 2015 MOD 0002: April 20, 2022 MOD 0003: March 3, 2023

Input to the Office of Nuclear Energy's Competitive Research and Development Funding Opportunity Announcement for Universities

Office of Nuclear Energy
Office of Nuclear Energy Technologies

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1 Introduction

NE's mission is to advance nuclear energy science and technology to meet United States (U.S.) energy, environmental, and economic needs. NE has identified the following goals to address challenges in the nuclear energy sector, to help realize the potential of advanced technology, and to leverage the unique role of the Government in spurring innovation:

- 1. Enable continued operation of existing U.S. nuclear reactors.
- 2. Enable deployment of advanced nuclear reactors.
- 3. Develop advanced nuclear fuel cycles and spent nuclear fuel management options.

NE strives to promote integrated and collaborative research conducted by national laboratory, university, industry, and international partners under the direction of NE's programs, and to deploy innovative nuclear energy technologies to the market and to optimize the benefits of nuclear energy.

NE funds research activities, through competitive and direct mechanisms, to best meet NE's mission. This approach ensures a balanced research and development (R&D) portfolio and encourages new nuclear power deployment with creative solutions to the universe of nuclear energy challenges.

This Request for Information (RFI) addresses the competitive portion of NE's R&D portfolio, as executed through the Nuclear Energy University Program (NEUP) and the Nuclear Science User Facilities (NSUF).

For more information on NE's programs, please visit the Office of Nuclear Energy Department of Energy website.

Please note that there will be a separate RFI for infrastructure input.

2 Requested Information

The focus of this RFI is to obtain input to and identify potential new research areas for future FOAs in areas that support NE's mission.

DOE is seeking ideas, input, comments, feedback, and recommendations from interested parties for future competitive university-led research projects.

This input may lead to a more robust R&D program that reflects communities' ideas and could identify new creative, innovative, and transformative outcomes.

DOE also seeks input regarding the structure of the solicitation itself, including any examples of other solicitations that have been successfully used for competitive university research.

As a result of last year's RFI input, the Office of Nuclear Energy has incorporated several changes to the current CINR solicitations as follows:

• Increased the award size up to \$1,000,000 for NEUP R&D projects.

- Broadened R&D topical areas to allow for innovative ideas that are of high interest to the NE mission.
- Revised the application review process to increase focus on technical merit.
- Created blue-sky areas, including large, open-ended Integrated Research Project scopes.
- Modified R&D award mechanism from cooperative agreements to grants, allowing for additional flexibility in reporting requirements.
- Adjusted eligibility requirements to allow for more participation by applicants as IRP and R&D Principal Investigators (PIs).
- Increased engagement with Minority Serving Institutions.

Additionally, NE is considering implementation for the following items:

- A 'Phase II' project competition based on successful current CINR awards.
- A research experience for undergraduate students to be incorporated into future CINR awards.
- A reactor sharing program to promote university research reactors, increase use and engagement, and provide outreach to K-12 audiences.

Please note that the following topics are not of interest to NE: medical physics, nuclear fusion, nuclear forensics, and environmental management.

3 Cover Page

Responses shall include a cover page containing the following information:

- RFI title
- Names, phone numbers, and e-mail addresses for the principal points of contact
- Company or affiliate name and address
- Date of submittal

4 Funding Opportunity Announcement Recommendations

In addition to research area recommendations, described below, NE is requesting that participants in this RFI consider providing input to the following questions:

- 1. In FY 2023, CINR topical areas were broadened to allow increased flexibility for university creativity. Did this change create the appropriate environment for university innovation and creativity in the application process?
- 2. Are there examples of effective university research programs that utilize different application and review methodologies? What are the benefits and disadvantages of those approaches compared to the CINR FOA? Please share a link to any recommended applications and/or programs.

- 3. Are there partnership mechanisms that could make CINR-funded university research more effective than it currently is? Please provide examples.
- 4. Are there ways to better integrate equity and justice considerations into the CINR FOA? Please describe.

5 Research Areas Recommendations

Clearly define any proposed research area recommendation and how it relates to any part of NE's mission as described in this RFI. Describe any defined goals in achieving the desired outcomes, along with appropriate metrics to assess how well those goals have been achieved. Current work scope examples can be found in the FY 2023 CINR FOA.

Areas specifically <u>not of interest</u> to NE include medical physics, nuclear fusion, nuclear forensics, and environmental management.

NE is requesting that participants in this RFI provide their input by answering the following questions:

- 1. What technical areas should be considered in NE's FOA that would have the highest near or long-term impact to NE's applied research mission?
- 2. What current nuclear energy-related technological needs/gaps could the university research community be most effective in solving?

General information for each recommendation should include the following:

- Description of R&D
- Project period length
- Budget range
- Justification for how it would support the NE mission (i.e., is it directly related to a specific NE program, is it a strategic need that doesn't fit within the current NE program structure, etc.)

RFI participants are encouraged to include all relevant work scope recommendations in one RFI submission.

6 Other Information

Provide any other relevant information that would help improve the solicitation process.

7 Participant Eligibility for Response to the RFI

Information is being sought from educational institutions, national laboratories, utilities, private industry, and any other interested parties.

8 Program Guidelines

This market research request is done under the Federal Acquisition Regulation (FAR), Parts 10 – Market Research and FAR subpart 15.201(e) – Requests for Information.

9 Intellectual Property Rights

Participants are advised that RFI responses should be submitted without any restrictive markings. However, if restrictions are required to fully explain a response, the participant is responsible for marking the cover page and any and all submittal documents appropriately. Respondents are strongly discouraged from placing any restrictive markings on submissions as they may limit DOE's ability to use the submitted information.

10 Communications Protocol

Responses must be submitted through www.NEUP.gov to be considered. Applicants must create an account to access the submission site. Submit electronic submissions through the "Applications" function at www.NEUP.gov. If a respondent has problems completing the registration process or submitting a response, call 208-526-2123 or send an email to NEUP@inl.gov.

Replies to this request should follow the general guidelines provided above and information should be as succinct as possible. There is a three (3) page limit, not including the cover page, on each submittal. Respondents are encouraged to provide input on any areas of interest of this RFI and each individual idea should be submitted separately identifying the area of interest.

Participants are advised that any indication of interest, in the affirmative, is not meant to imply nor in any way impart an obligation on the part of the Government that an award will be forthcoming for the offered work or project.

11 Schedule

11.1 Submission Time and Date

DOE will continually accept responses to this RFI as long as it remains active. For submitted information to be considered for inclusion in the work scopes developed for grant opportunities, a response is required no later than **5:00 p.m. Eastern Time** as follows:

RFI Response Due Date	For FOA Development Year
May 15, 2023	2024
May 13, 2024	2025
May 12, 2025	2026
May 11, 2026	2027

This announcement does not impose any obligation on the United States Government, nor does it signify any intent for a contract or other form of award.

12 Disclaimers

- a. DOE does not plan to send individual acknowledgements or replies to respondents to the RFI. However, DOE may conduct one-on-one meetings with entities that respond to this request if clarification or additional information is required to improve DOE's understanding of the comments provided. If DOE decides to hold one-on-one meetings, applicable parties will be contacted. The decision to meet with an organization one-on-one has no bearing on the worthiness of its RFI submittal or on any future offerings.
- b. This is a request for information only. It has no direct relation to other DOE FOAs or solicitations. DOE does not presently intend to solicit or award any kind of contract or financial assistance award; this RFI is issued only with the intent of obtaining information.
- c. Any response to this RFI is voluntary and does not commit the Government to any expense or obligation. This request does not impose any obligation on the Government or signify a firm intention to enter into a contract or financial assistance award. No costs associated with responding to this RFI or participating in any subsequent meetings will be borne by the Government.
- d. DOE does not intend to publish the results of the responses to this RFI.