Office Director and Program Manager Q&A

The CINR R&D 2025 awards are still under review, and while we are optimistic the FY25 awards will eventually be announced, that outcome is not guaranteed. While awaiting the 2025 results, applicants will need to decide how to move forward with their application(s) to the FY26 CINR R&D as well as other NOFOs. As a reminder, NE will not advise an applicant's decision to or not to submit application(s) to a funding opportunity.

Rather than delay the new FY26 NEUP NOFOs indefinitely while awaiting FY25 award approval (which is not guaranteed), the program decided to move forward with the FY26 NOFO release.

Q: I was wondering if you could point me to any documentation on the role of a Deep Geological Repository Program under the framework of Executive Order 14302 and the Nuclear Lifecycle Innovation Campuses. Moreover, the solicitation states that the awardees will work with DOE officials to integrate their current lifecycle cost analysis into their socio-economic models. I was wondering if you could point me to any documentation on the status of the lifecycle cost report that the ADVANCE ACT requested by January this year.

A: For documentation on the role of a deep geologic repository in the Nuclear Lifecycle Innovation Campus (hereafter "Campus"), please refer to the Request for Information (RFI) linked here: SAM.gov. As stated in the RFI, for example, the Campuses "must support functions such as fuel fabrication, enrichment, reprocessing used nuclear fuel, and disposition of waste," and various technologies are indicated as in the discussion of "deep geologic disposal facilities (including boreholes) for HLW would ensure safe, long-term isolation of radioactive waste, protecting communities and ecosystems." Each Campus is expected to anchor integrated, full-cycle nuclear ecosystems that could co-locate and support the entire nuclear value chain including permanent disposal of commercial used nuclear fuel and high-level waste (not just interim storage) and includes novel initiatives such as recycling of used nuclear fuel.

In terms of DOE's socio-economic models, the report referenced by the Advance Act is not publicly available at this time. However, DOE funded a University of South Carolina socio-economic study on Federal used fuel staging facility. That report was recently completed and can be found here: Final University of South Carolina Socioeconomic Study March

2026 | CURIE/. Such a facility would be one part of a broader Campus that would include other support functions mentioned above. Additionally, you may find some of the information in the DOE Agency Financial Report for FY2025 helpful. That report can be found here: FY 2025 DOE Agency Financial Report | Department of Energy

Q: According to the solicitation for Topic Area 5, "a visit to an international test facility" is strongly recommended. We were wondering whether the term "international test facility" refers specifically to an URL, or if other types of international test facilities would also be acceptable.

A: It is correct that the international test facility does not have to specifically be a URL. It can be a relevant facility that will support the proposed work within the scope of the topic area.

Q: Can I submit my FY 25 proposal for the FY 26 CINR call?

A: If an applicant chooses to submit their FY25 proposal again for FY26 and the FY25 proposal is selected for an award, the applicant has the option to either:

- Accept the FY25 award and withdraw the FY26 application
- Decline the FY25 award

The decision to resubmit is at the discretion of the applicant and does count against the application limits established in the NOFO.

Q: Given the delay in the FY25 CINR R&D award announcements, is it correct that for the FY26 NOFO cycle only, PIs and co-PIs will not be bound by the usual maximum of six proposals (three as PI, including active awards, and three as co-PI)?

A: Applicants will not be penalized if potential FY25 award would impact their eligibility for FY26 applications. According to the guidelines, "A PI may have no more than one IRP, or three R&D projects (excluding NSUF Access Only projects) funded at any time and may not submit more Full Applications than would be allowed by these restrictions." The rule of three (3) proposals as lead/six (6) proposals total, as stated in the NOFO, will apply for all FY26 applications and will only be excepted as it pertains to potential FY25 awards. For example, if you didn't have any CINR awards and you submitted three (3) as a PI for 2026 and at a later date you found out that you received an FY 25 award. The FY 25 award would not count toward your eligibility limit.

Q: There is a discrepancy between the recommended naming conventions for files in NOFO Part 1 and Part 2. Which naming convention should be used?

A: Both naming conventions will be accepted. However, the preferred naming convention is the one listed in the application.

Q: In NOFO Part 2, in the Pre-Application Technical Volume section, it references Part 1 Section A (A summary of the proposed project, including a description of the project and a clear explanation of its importance and relevance to the objectives). However, I cannot find this section. Can you direct me to the correct reference?

A: The correct reference is NOFO Part 1, *Program Description*.

Q: For topic area 10: Is advanced materials manufacturing of sensor parts (i.e., functional materials) that reduce time/cost of detection devices be of interest and responsive?

A: Development of novel sensor technologies that account for operating environments in the existing and advanced reactor fleets is of interest. Radiation health physics dosimeters (e.g., neutron or gamma detectors), and radiation/contamination monitoring devices are not of interest under this topic area.

Q: We are a research group looking to extend our prior work (on AI/ML to model material grain growth) to use AI/ML to model irradiated reactor materials. Given that the topic focuses on AI/ML for modelling, we were not sure if this better fit into Topic Area 13 (Artificial Intelligence for Nuclear Energy) or Topic Area 9 (Modeling & Simulation).

A: We realize that some of the Topic Areas are quite related, and your proposed work seem to fit in either area. In this case, we encourage you to select the one that you feel best fits. If we feel the application would fit better under a different Topic Area, we will reach out to the PI to discuss moving the application to another area.

Q: When we are working on the NEUP R&D pre-application, we see different format requirements in NOFO part 1 and part 2.

A: All non-budget documentation (use templates where provided) is to be prepared using standard 8.5” × 11” paper with 1-inch margins (top, bottom, left, right) and a font size no smaller than Times New Roman or Calibri 11 point (except in figures or tables, which may be 10-point font).

Q: Do advanced materials projects focused on radiation shielding materials fall under an NSUF-2 topic area?

A: In the NOFO, the NSUF-2 topic area states: “NSUF is focused on providing access to unique and highly specialized nuclear research facilities and technical expertise to advance fundamental and applied nuclear energy technologies that crosscut a range of NE topic areas. These technologies include, but are not limited to, (1) fuel and core materials,

(2) structural materials and manufacturing technologies, and (3) sensor materials and active components." Radiation shielding materials that have applicability to the NE mission and goals would fall under the NSUF-2 topic area.

Q: The following is mentioned under the Topic area 12 - ADVANCED NUCLEAR MATERIALS AND MANUFACTURING TECHNOLOGIES. "In this proposal, we are looking for materials that can effectively capture and immobilize volatile chemical species during the recycling process."

Are there any specific streams or radionuclide species that are of particular interest?

A: We are specifically looking for materials to capture and immobilize volatile radionuclides such as krypton and xenon. The capture of noble gases can be achieved either using cryogenic methods or by physical adsorption on solid matrices. Please see the following publication Radioactive iodine and krypton control for nuclear fuel reprocessing facilities by Nick Soelberg, Troy Garn, Mitchell Greenhalgh, Robert Jubin, etc.

Q: Is Cl isotope enrichment considered for the CINR NOFO?

A: Cl isotope enrichment to support advanced reactor (MSR) development and demonstration is a topic of interest or the CINR NOFO. Generally, Cl isotope enrichment R&D would fall under Topic Area 1.

Q: Can we push the deadline for preapps back?

A: No, the due dates for CINR can't be changed at this time. DOE recognizes the mismatch between the anticipated award date and typical student recruitment timeframes and has increased the award period to 3 years and 6 months (February 1, 2027 – July 31, 2030) to provide PIs with flexibility.

Q: What topic area does Innovative Materials for Off-gas Capture and Waste Forms go?

A: Topic area 12, Advanced Nuclear Materials and Manufacturing Technologies.

Q: Topic area 4 (Fuels) also mentions that there's a need for characterizing and modeling molten salt properties, structure, and chemistry, but comments that fuel salt R&D needs to be expanded to process chemistry. However, thermophysical property measurements of salts was also discussed for MSRs in this topic area 1. Which topic area would be best for salt property measurements.

A: Salt property measurements are generally better suited for Topic Area 4. As stated in the NOFO, Topic Area 4 identifies R&D needs that include "fuel salt characterization and qualification", whereas Topic Area 1 includes a specific focus on "material and operational challenges presented by molten salts (as distinct from fuel development described in Topic

Area 4)". In other words, R&D related to molten fuel salt properties generally falls closer to Topic Area 4, whereas R&D related to the impact of molten fuel salt properties on MSR material and operational challenges generally falls closer to Topic Area 1.

Q: I was surprised to see bentonite clay as a topic of great interest for rad waste repositories. My impression was that bentonite clay was originally considered for DGRs (esp. Yucca Mountain) because upon water ingress it would swell and provide a negative pressure against further water ingress. My recollection was that in the YM project the concept was then abandoned in favor an air gap that would provide a more effective barrier against water ingress than bentonite would. Has that thinking changed? I imagine there are documents that spell out which alternatives the DOE is currently considering. Can you refer me to some of those documents?

A: DOE is evaluating disposal programs in different rock types, including argillite and crystalline rock types. Under the YM scenario, it made sense to move away from bentonite for the reasons identified. However, the same is not or may not be true in other rock types so DOE is (re)evaluating the influence, function, and limits of bentonite in a repository system.

Q: Thank you for your question regarding which alternatives DOE is considering. DOE has recently refocused its disposal R&D program on reducing liabilities, such as through direct disposal of dual-purpose canisters (DPC)s, and reducing conservatisms in performance assessment modeling for licensing future repository in generic host rocks, including argillite and crystalline host rocks. This results in increased interest in the performance of engineered barriers at the higher temperatures generated by DPC direct emplacement.

A: Technical publications regarding DOE funded research in these areas is generally available online. Information on integration of direct disposal of DPCs can be found in Section 5.1 of *Integration of the Back End of the Nuclear Fuel Cycle* at https://www.osti.gov/servlets/purl/1817319. Information on the previous campaign and its objectives can be found in the *2023 Spent Fuel and Waste Science and Technology Campaign Disposal R&D 5-Year plan (FY2023 Update)*, available at https://www.osti.gov/biblio/2403492. Recent progress within crystalline host rock can be found in *Modeling and Experimental Investigation of Spent Fuel Disposal in Crystalline Rocks: FY23 Progress Report* at https://www.osti.gov/biblio/2386989. Recent progress within argillite host rock can be found in *Evaluation of Nuclear Spent Fuel Disposal in Clay-Bearing Rock - Process Model Development and Experimental Studies at https://www.osti.gov/biblio/2369623*. Recent progress specific to engineered barrier systems can be found in *FY23 Status of Engineered Barrier Systems Work Package at https://www.sandia.gov/app/uploads/sites/273/2024/07/FY23-EBS-M2.pdf*

Q: In previous years, a letter of intent was only required if NSUF facilities were going to be used. I wanted to make sure a letter of intent is required even if I will not be using NSUF facilities?

A: You are correct. A letter of Intent is only required for topic area **NSUF-1**: Nuclear Science User Facilities (NSUF) Joint R&D and Access and topic area **NSUF-2**: Nuclear Science User Facilities (NSUF) Access Only.

Q: In the CINR NOFO there is a statement about changes in PI and collaborator between the pre-application and the full application. While this kind of transition is always possible, this year's timing makes it even more likely. The NOFO language does not refer to the institution of the PI and/or collaborators. Will there be any concerns about a PI or collaborator changing institutions in that time between pre-application and full application? Will that be considered an easily justified case?

A: In Part 1. Section B. Limitation on Number of Applications Eligible for Review. **NOTE:** Applications submitted to this CINR NOFO will be awarded to the applicant entity listed and will typically not be transferred to another institution if a lead PI changes institutions. However, DOE may consider PI requests for transferring or subawarding an award from the original institution to the PI's new institution. In the event a PI changes institutions, the PI must contact the Contract Specialist for approval prior to the award being transferred.

Q: For MSR fuels, are there plans to allow collaborations with the Molten Salt Thermal Examination Capability (MSTEC) facility at INL as part of the CINR?

A: The MSTEC facility at INL is anticipated to be operational in March 2026. If you are interested in using the MSTEC facility as part of the CINR topic area NSUF-1 or NSUF-2, please contact nsuf.inl.gov for the capability owner point of contact and additional information. It is strongly recommended to contact the capability owner prior to submission via nsuf.inl.gov.

Q: If the same team propose the same project for the 2026 cycle, will we be disqualified from the CINR R&D 2025 awards?

A: No, you would not be disqualified from the CINR R&D 2025 awards if you propose the same project for the 2026 cycle. However, if you receive and accept an award for the CINR R&D 2025 cycle, your 2026 proposal would be disqualified.

Q: If this NCE request is approved, will I be ineligible to respond to this NOFO? If the NCE approval comes after the pre-application is submitted with me as the lead PI, may we change the lead PI if invited to submit a full application?

A: Yes, if the NCE request is approved then the PI is ineligible to submit an R&D application for this CINR NOFO. Refer to Part 1. Section B. Limitation on Number of Applications Eligible for Review in the NOFO for additional information. The PI and named collaborators identified in the Pre-Application may not be changed in the Full Application without adequate justification and consent of the Contracting Officer. If a change is necessary, the applicant shall provide this request and justification at least 7 calendar days prior to the full application due date.

Q: For MSR corrosion test, does it include developing corrosion resistant coating?

A: Yes.

Q: This is about many reactors, so how many awards are expected in this technical area 1?

A: This is dependent on several factors including funding, number of proposals, quality of proposals, etc.

Q: Is development of secondary coolants for MSRs/FHRs of interest to topic area 1?

A: The development of primary coolants is a high priority.

Q: Is microreactor specifically for MARVEL? or other designs as well?

A: No, Yes.

Q: Under TA 1, is there any preference on experimental work or computer simulation work? or both work are acceptable?

A: Begin by thoroughly reading through each topic area description and determine which topic area fits your research. There are multiple acceptable areas for both experimental and computer simulation.

Q: Integrated Energy Systems (IES) isn't explicitly mentioned in the description. Would research on IES fall under Topic Area 2 (Existing Plant Optimization)? And would this also include IES research integrated not only with LWRs, but also with advanced reactors such as SMRs and MMRs?

A: IES covers any reactor because it's really more of a product than a reactor technology itself. It is best to read through each topic area description and determine which topic area fits your research.

Q: On p. 18 of the CINR NOFO Part 2 is written: "A summary of the proposed project, including a description of the project and a clear explanation of its importance and relevance to the objectives in Part I Section A." Could you clarify what "*Part I Section A*" refers to?

A: The reference should be NOFO Part 1, Program Description.

Q: In the *AFC Metallic Fuel Research and Development 5-Year Plan*, **CER-MET/CER-CER fuel concepts** were identified as one of the next-generation fuel technologies. 1.) Since the solicitation did not call out CER-MET/CER-CER fuels, would it be a good fit for **Topic Area 4** in the current NEUP NOFO? 2.) Since the development of such fuel concepts requests addressing aspects such as manufacturing techniques, materials performance, and overall impact on reactor design, will Topic Area 4 or any other Topic Areas be the best fit for such proposal?

A: *Yes, all the new concepts related to metallic fuel and others, including CER-MET/CER-CER fuels, will be a good fit for Topic Area 4. Yes, Topic Area 4 will be the best fit for manufacturing techniques, materials performance, and other impacts related to fuels and fuel cladding materials; other Topic Areas such as 12 (ADVANCED NUCLEAR MATERIALS AND MANUFACTURING TECHNOLOGIES) also support manufacturing techniques, materials performance study on nuclear structural materials, fuel cladding materials, and immobilization materials.*

Q: Is graphite recovery/recycle/management an area of interest in the NOFO? What would be the Topic Area of proposal focused subject?

A: Graphite recovery/recycle/management is definitely an area of interest for Topic Area 3: Nuclear Fuel Recycle.

Q: The comment was made that tying any proposal to direct end user applications is important, and showing industrial support; in that regard, will it be sufficient to at the very least have an advisory panel comprised of industrial members?

A: Yes, an industry member would be acceptable.

Q: For modeling (topic area 9), do you consider chemistry type simulations for these? Secondly, what level are you looking into – continuum, quantum or all?

A: Yes, chemistry modeling related to a reactor or fuel type can be proposed under the modeling and simulation topic.

Q: For topic area 10, are you specifically interested in measurements that go in a reactor? Is Post-Irradiation Evaluation also of interest?

A: Yes, both reactor and broader topics are acceptable.

Q: For topic area 12, is it more focused on new materials development or manufacturing of legacy materials or both? What type of materials are of specific interest?

A: Both are of interest, but please ensure they are targeted enough and have correct partners.

Q: For topic area 10, are you specifically interested in real physical reactor systems or would lab-scale non-reactor testbeds and/or simulated data also be considered?

A: Both real systems and lab-scale testbeds are acceptable.

Q: For topic 13 are you also interested in advancing external hazards risk assessment for nuclear power plants using AI and ML?

A: Yes, it is relevant to the topic area.

Q: For topic area 13 do the technical, economic, siting, and regulatory processes need to be driven by AI/ML solutions?

A: AI should be a central theme within the application.

Q: Given the Full Application deadline of June 9th 2026, do you have a planned date for the Selection and Award Notices? Will the key dates become the new normal for future years?

A: The goal is to speed things up and get back on track to the previous schedule, but it may take a few years.

Q: For high-risk research ideas that could also align with other topic areas, would the Blue Sky area be more encouraging or appropriate?

A: It depends, but if it can be done within the reduced budget, it may fit in the Blue Sky area.

Q: Does the PI have to be a part of an engineering department? Can a PI from a chemistry department with research goals aligned with NE mission apply?

A: Yes, a PI from chemistry or other departments can apply.

Q: What is the high risk high reward definition compared to ARPA-E?

A: High risk would mean something that doesn't fall easily within our programmatic areas. It could be one that is relevant to the NE-mission but not fall within the topic areas listed here, but could have a big impact.

Q: For R&D project, if I collaborate with a company, do you have limit for the budget limit to the company?

A: The effort by non-universities and colleges, in aggregate, shall not exceed 20% of the total project cost.

Q: To follow up on a previous question: if I lead a project from university side, but I have a national lab and nuclear energy company as partners, can each of them have 20% of the total budget?

A: No, the limit is 20% total for all non-university partners including national laboratory and industry collaborators.

Q: For molten salt properties measurement, do you have specific salt in mind of interest?

A: Chlorides and Fluorides.

Q: For metallic fuels, would you consider new concept fuels to mitigate FCCI?

A: Yes, we are looking for new metallic fuel to deal with FCCI.

Q: Will the modeling and simulation of molten salts properties be more relevant to Topic Area 1 (Reactor Development …) or Topic Area 4?

A: This would be something that could be relevant to topic area 4 for investigating properties of salt fuels (salt chemistry, fission products, etc.). It will depend whether your project is focused on the reactor dynamics or fuels themselves.

Q: Is application of machine learning tools in design of novel fuels encouraged?

A: Yes it is encouraged, ML and AI techniques have been used at national labs to develop/design new composition or develop some databases for the fuel or other PIE especially at ANL and INL.

Q: Marla mentioned that DOE intentionally made the description of Topic Area 5 general (and less technical), so we have more flexibility in writing the proposal. I understand that this would encourage applied research. On the other hand, I assume that this does not exclude fundamental R&D for topic area 5, correct? My group and my co-PIs are interested in writing a proposal focusing on fundamental R&D. We made progress in this area with the support of my previous NEUP R&D grants, and thus we hope to continue doing fundamental R&D in disposal research. Would upcoming opportunities be suitable for laboratory-based experimental work on the immobilization of radionuclides by geological materials?

A: Correct, nothing precludes fundamental research, and submissions with this focus are, of course, welcome. However, as a tie to the larger direction of the disposal program, it would be good to incorporate into any submission how the research helps move disposal research and development further. There are many benefits to continued research, absolutely no issue with that. But the disposal program is moving away from evaluating more uncertainty that results in increases conservatism in models etc. We are looking for

help to answer questions and implement a disposal program. I hope that makes sense. Please, let me reiterate though because I am supportive of research; research is needed and proposals on fundamental research are fully welcome. But the DOE evaluation will focus on what question is being answered.

Q: I have a question regarding applications to be submitted in response to the CINR NOFO. Is the same individual eligible to apply for both a *university-led R&D project* and *Scientific Infrastructure Support for CINR* proposals?

A: Yes, you can apply for both. The eligibility requirements for CINR R&D and Scientific Infrastructure Support for CINR are independent of each other.

Q: I noticed that the guidelines state: B. Limitation on Number of Applications Eligible for Review U.S. university and college PIs may submit up to six Pre-Applications (three of those applications may be as lead PI). A PI may have no more than one IRP, or three R&D projects (excluding NSUF Access Only projects) funded at any time and may not submit more Full Applications than would be allowed by these restrictions. I read this as the limit on the PI and not the institution, is that correct? Are multiple applications from an institution permitted?

A: Yes, this is correct. Yes, multiple applications from an institution are permitted.

Q: Are there any regulatory changes preventing me from applying to the FY26 NOFO. I am presently an H-1B visa holder.

A: There are no restrictions in the CINR NOFO on eligibility for H-1B visa holders. As long as your university approves your application you are eligible to apply.

Q: For the NSUF topic areas, can the R&D fund be allocated to support university personnel to assist the execution of the proposed task?

A: Yes, for NSUF 1, but not for NSUF 2.

Q: How many awards are expected in the topic area 13?

A: This is dependent on several factors including funding, number of proposals, etc.