U. S. Department of Energy Idaho Operations Office



Fiscal Year 2025 Distinguished Early Career Program

Funding Opportunity Announcement: DE-FOA-0003311 Announcement Type: Initial – May 20, 2024 Assistance Listings Number: 81.121

Informational Webinar	May 9, 2024
	(Video links and presentations will be available at www.NEUP.gov)
FOA Issue Date	May 20, 2024
Application Due Date	August 6, 2024, at 5:00 p.m. Eastern Time
Planned Selection Announcement	March 6, 2025
Date	

NOTE: Deadlines are the dates/times by which DOE must receive the specified submittal

Registration Requirements

There are several one-time actions applicants must complete in order to submit an application in response to this funding opportunity announcement (FOA) (e.g., register with the System for Award Management (SAM), obtain a Unique Entity Identifier, and create an account on NEUP.gov. Applicants who are not registered with SAM should allow up to five weeks to complete this requirement. It is suggested that the process be started as soon as possible.

If an applicant has not already done so, they must:

- 1. Register with the SAM: https://www.sam.gov/SAM/.
- 2. Obtain the Unique Entity Identifier (UEI) number generated in SAM.gov.
- 3. Create an account on the NEUP.gov website at www.NEUP.gov using the 'Sign In' tab in the top right-hand corner. To create an account: 1) Click "Create a new account"; 2) Fill out the required information and click "Create User"; and 3) Fill out the information in the "My Information" section.

Questions

Questions regarding the content of this FOA must be submitted using the contact information found in Part VII, Section B of this FOA. DOE will aim to respond to a question within three business days unless a similar question and answer has already been posted on the website.

Application Preparation

Applicants must prepare the application package and application forms from the NEUP.gov website: https://neup.inl.gov/SitePages/Home.aspx

Additional instructions are provided in Section IV of this FOA.

Application Submission

Apply for this FOA at www.NEUP.gov. Electronic applications and instructions are available at the NEUP.gov website. To access these materials: (1) go to www.NEUP.gov; (2) select "Sign In" from the top right-hand corner of the screen; (3) enter your user credentials; (4) select "Applications" from the menu; and (5) click on "Create New Application" for the type of application you are creating. If you have any questions about your registration, contact the Innovative Nuclear Research (INR) Integration Office at 208-526-2123 or at neup@inl.gov.

Any questions pertaining to items such as application processes, eligibility, or application document requirements must also be directed to NEUP@inl.gov.

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Checklist for Avoiding Common Errors:

Item	Issue
Page Limits	Strictly followed throughout application, including particular attention to: - Research Narrative - Career Objective Statement - Endorsement Letter - Data Management Plan(s) (DMPs)
Protected Personally Identifiable Information	None present in the application
Project Abstract	Name of applicant, Principal Investigator (PI), PI's institutional affiliation(s),
Budget	Use current negotiated indirect cost and fringe benefit rates
Budget Justification	Justify all requested costs (Please include quotes and pricing, negotiated rate plans, and/or links to university policy)
Vitae	No page limits
Current and Pending Support	Provide a complete listing of all activities including brief abstract of scope of work for all items listed, regardless of source of funding. Ensure the certification wording from Part IV Section E.11.1 is included in the template. (If using the SciENcv template, the certification wording, signature, and date must be appended to this form.)
Certifications and Assurances	Ensure that signatures are completed for both sections of the certifications and assurances documentation
R&R Other Project Information	 If marking proprietary information, clearly mark the sections where proprietary information is in the narrative or other documents using the procedure outlined in the FOA. If marking 'yes' to international collaboration, list all institutions and countries.
Data Management Plans (DMP)	 If referring to an experiment's DMP, describe the relationship to the proposed research. Include a DMP even if no experimental data is expected

LIST OF ACRONYMS

CEJST Climate and Economic Justice Screening Tool

CFR Code of Federal Regulations

CTD Crosscutting Technology Development

DAC Disadvantaged Communities

DECP Distinguished Early Career Program

DMP Data Management PlanDOE Department of Energy

FC R&D Fuel Cycle Research and Development

FFATA Federal Funding and Transparency Act

FOA Funding Opportunity Announcement

FFRDC Federally Funded Research and Development Center

FSRS FFATA Subaward Reporting System

FWP Field Work Proposal

HBCU Historically Black Colleges and Universities

IHE Institution of Higher EducationM&TE Measuring and Test Equipment

MSI Minority-serving Institution

NE Office of Nuclear Energy

NEAMS Nuclear Energy Advanced Modeling and Simulation

NEET Nuclear Energy Enabling Technologies

NEUP Nuclear Energy University Program

NRC Nuclear Regulatory Commission

NSUF Nuclear Science User Facilities

PI Principal Investigator

PIE Post-irradiation Examination

QA Quality Assurance

R&D Research and Development

RD&D Research, Development, and Demonstration

SAM System for Award Management

SMR Small Modular Reactor

TCU Tribal Colleges and Universities

PART I – FUNDING OPPORTUNITY DESCRIPTION

General inquiries about this Funding Opportunity Announcement (FOA) should be directed to Andrew Ford at <u>fordaj@id.doe.gov</u>. Questions about the application system should be sent to <u>NEUP@inl.gov</u>.

1A. BACKGROUND

The Distinguished Early Career Program (DECP) is the Department of Energy (DOE) Office of Nuclear Energy's (NE) most prestigious award for the most innovative distinguished faculty members beginning their independent careers. The intent of the program is to provide stable support to those faculty to form the impactful research groups, innovative lines of inquiry, educational approaches, and critical new research directions that will drive the next generation of nuclear energy innovation. NE encourages all eligible applicants to apply, especially women, members of underrepresented minority groups, and persons with disabilities.

This FOA is soliciting distinguished early career applications that provide a clear research and education plan that highlights the applicant's research and educational strengths; the research and education vision to support the development of the faculty member; and research infrastructure, curriculum, and outcomes that will advance the applicant's research focus while training the next generation of nuclear energy professionals. Applications are required to focus on the NE mission areas as outlined below.

The extraordinary characteristic that places the NE Early Career Award into a Distinguished category is the truly integrated nature of excellence in research, education, and leadership. The applicant must demonstrate excellence in all three categories, including an integrated plan over the course of a career.

Excellence in research can be demonstrated by exceptional publications, presentations, invited seminars, research awards, and prestigious funding. Excellence in education can be demonstrated by the creation of new courses, curricula, national presentations, innovative teaching methods and engagement. Excellence in leadership can be demonstrated by extraordinary efforts to break new ground in interactions with industry, national laboratories, universities, international entities, professional groups, community groups, and startup companies. All examples cited are only for illustrative purposes and are not exhaustive.

Integration of Research and Education - All applications should describe an integrated path that will lead to a successful career as an outstanding researcher, educator, and contributor to the broader nuclear energy community. NE recognizes that there is no single approach to an integrated research and education plan but encourages all applicants to think creatively about the reciprocal relationship between the proposed research and education activities and how they may inform each other in the applicant's career development as both an outstanding researcher and educator. These plans should reflect the proposer's own disciplinary and educational interests and goals, as well as the needs and context of their organization. Because there may be different expectations within different disciplinary fields and/or different organizations, a wide range of research and education activities may be appropriate for this program.

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, help realize the potential of advanced technology, and leverage the unique role of the government in spurring innovation:

- Keep existing U.S. nuclear reactors operating.
- Deploy new nuclear reactors.
- Secure and sustain our nuclear fuel cycle; and
- Expand international nuclear energy cooperation.

Collectively, all NE-sponsored activities support the Department's priorities to combat the climate crisis, create clean energy jobs with the free and fair chance to join a union and bargain collectively, and promote equity and environmental justice by delivering innovative clean energy technologies for nuclear energy systems.

All applications submitted under this FOA must demonstrate a strong tie to the mission. NE conducts crosscutting nuclear energy research and development (R&D) and associated infrastructure support activities to develop innovative technologies that offer the promise of dramatically improved performance for its mission needs while maximizing the impact of DOE resources.

NE strives to promote integrated and collaborative research conducted by national laboratories, universities, industry, and international partners in conjunction with NE's programs and to deploy innovative nuclear energy technologies to the market to meet the strategic goals and optimize the benefits of nuclear energy. NE funds research activities, through both competitive and direct mechanisms, as required to best meet those goals. This approach ensures a balanced R&D portfolio and encourages new nuclear power deployment with creative solutions to the universe of nuclear energy challenges through various major research programs funded by NE.

1.A.1 Statutory Authority

The activities to be supported under this FOA are authorized under § 951 (a) of the Energy Policy Act of 2005, as codified at 42 U.S.C. § 16271(a). Additionally, 42 U.S.C. § 16274 and 31 U.S.C. § 6304 applies.

1B. MAJOR NE FUNDED RESEARCH

This section describes various major research programs funded by NE. Applications are not limited to the specific described programs in this section.

1B.1 Fuel Cycle Research and Development (FC R&D)

The mission of FC R&D is to develop used nuclear fuel management strategies and technologies to support meeting the Federal Government responsibility to manage and dispose of the nation's commercial used nuclear fuel and high-level waste, as well as to develop sustainable fuel cycle

technologies and options that improve resource utilization and energy generation, reduce waste generation, enhance safety, and limit proliferation risk.

FC R&D's vision is that by mid-century, strategies and technologies for the safe, long-term management and eventual disposal of U.S. commercial used nuclear fuel and any associated fuel cycle technologies that enhance the accident tolerance of light water reactors and enable sustainable fuel cycles are demonstrated and deployed. Together, these technologies and solutions support the enhanced availability, affordability, safety, and security of nuclear-generated electricity in the U.S.

Current challenges include the development of high burn-up fuel and cladding materials to withstand irradiation for longer periods of time with improved accident tolerance; simplified materials recovery technologies; waste management technologies including storage, transportation, and disposal; proliferation risk reduction methods; and processes and tools to evaluate and communicate sustainable fuel cycle system options.

1.B.1.1 Interim Storage for Commercial Spent Nuclear Fuel

The Office of Integrated Waste Management (IWM) is pursuing federal consolidated interim storage for commercial spent nuclear fuel using a consent-based siting approach. Interim storage and associated transportation, both key components of an integrated waste management system along with disposal pathways, will enable the federal government to take an important step toward fulfilling its responsibilities to dispose of the Nation's spent nuclear fuel and high-level radioactive waste.

IWM activities address the technical, engineering, and operational aspects of implementing a storage facility and associated transportation in parallel with the consent-based approach to siting, which includes broad public participation, a focus on the needs and concerns of people and communities, and equity and environmental justice.

FC R&D	Points of	Contact	(POC)	Table
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POC	Area	Contact Information
Frank Goldner	Advanced Fuels / Accident Tolerant Fuels	Frank.Goldner@nuclear.energy.gov
Kenneth Kellar	Advanced Fuels / Advanced Reactor Fuels	Kenneth.Kellar@nuclear.energy.gov
Matt Hahn	TRISO Fuels	Matt.Hahn@nuclear.energy.gov
Bill Del Cul	Material Recovery and Waste Form Development – Aqueous Separation and Molten Salt Separations	Bill.Delcul@nuclear.energy.gov
Jim Willit	Material Recovery and Waste Form Development – Molten Salt Separation and Molten Salt Fuels	James.Willit@nuclear.energy.gov

POC	Area	Contact Information	
Kimberly	Material Recovery and Waste Form	Kimberly.Gray@nuclear.energy.gov	
Gray	Development – Waste Form and Off-gas		
Tansel	Material Protection, Accounting, and	Tansel.Selekler@nuclear.energy.gov	
Selekler	Control Technologies		
Ming Tang	Innovative nuclear Cladding materials	Ming.Tang@nuclear.energy.gov	
	R&D		
John Orchard	Spent Fuel Storage and Transportation	John.Orchard@nucluear.energy.gov	
Prasad Nair	Spent Fuel Disposition	Prasad.Nair@nuclear.energy.gov	
Erica Bickford	Spent nuclear Fuel Storage,	Erica.Bickford@nuclear.energy.gov	
	transportation, and systems analysis		
Eric Ruesch	Consent-based siting	Eric.Ruesch@nuclear.energy.gov	

1B.2 Reactor Concepts Research, Development, and Demonstration (RC RD&D)

The RC RD&D program supports RD&D on existing and advanced reactor designs and technologies. This RD&D enables industry to address technical and regulatory challenges associated with maintaining the existing fleet of nuclear reactors; promoting the development of a robust pipeline of advanced reactor designs, technologies, and associated supply chains; and progressing these advanced reactor designs and technologies towards demonstration when appropriate.

Program activities are focused on addressing technical, economic, safety, and security enhancement challenges associated with the existing commercial light water reactor fleet and advanced reactor technologies, covering large, small, and micro-sized designs across an array of reactor concepts including those cooled by light water, liquid metal, gas, and molten salt.

RC RD&D POC Table

POC	Area	Contact Information
Dan Warner	Advanced Reactor Safeguards and Security and Light Water Reactor Sustainability (LWRS) – Physical Security	Daniel.Warner@nuclear.energy.gov
Sujata (Sue) Goetz	LWRS – Plant Modernization and Risk Informed Systems Analysis	Sujata.Goetz@nuclear.energy.gov
Sue Lesica	LWRS – Materials R&D	Sue.Lesica@nuclear.energy.gov
Jason Marcinkoski	LWRS – Flexible Plant Operation, Generation, Cybersecurity, and IES	Jason.Marcinkoski@nuclear.energy.gov
Diana Li	Microreactors	Diana.Li@nuclear.energy.gov

POC	Area	Contact Information
Matt Hahn	High Temperature Gas Reactor (HTGR)	Matt.Hahn@nuclear.energy.gov
Kaatrin Abbott	Fast Reactor Program (FRP)	Kaatrin.Abbott@nuclear.energy.gov
Janelle Eddins	Advanced Reactor Regulatory Development	Janelle.Eddins@nuclear.energy.gov
Michael Stoddard	Molten Salt Reactor (MSR)	Michael.Stoddard@nuclear.energy.gov
Melissa Bates	Advanced Small Modular Reactor (SMR) RD&D	Melissa.Bates@nuclear.energy.gov
Savannah Fitzwater	National Reactor Innovation Center	Savannah.Fitzwater@nuclear.energy.gov

1B.3 Nuclear Energy Enabling Technologies (NEET)

NEET conducts R&D and makes strategic investments in research capabilities to develop innovative and crosscutting technologies that resolve nuclear technology development issues. NEET programs are:

- Advanced Materials and Manufacturing Technologies (AMMT) that focuses on innovative research to accelerate the development, qualification, demonstration and deployment of advanced materials, manufacturing technologies, and supply chain capacity.
- Advanced Sensors and Instrumentation (ASI) that directs and performs research and development of ASOI to expand measurement capabilities by enhancing performance of existing technologies or developing novel techniques and systems to address critical technology gaps.
- Nuclear Energy Advanced Modeling and Simulation (NEAMS) that accelerates earlystage development of advanced reactor and fuel concepts and enables improved economics of new and existing designs by providing leading-edge computational tools to U.S. industry. The primary objective is to develop and deploy these predictive tools and methods to industry, academia, and Government, including the Nuclear Regulatory Commission (NRC), for research, analysis, design, and regulatory acceptance of advanced reactor and fuel cycle systems. These advanced computational tools employ scalable simulation methods on high-performance computing architectures, in combination with a science-based, mechanistic approach to physics modeling, to allow scientists and engineers to better understand reactor materials properties and coupled phenomena in nuclear energy systems. These tools span length scales from atomic to mesoscale to engineering scale, and time scales from picoseconds to seconds to days. These tools are currently being used to move certain advanced reactor concepts forward to commercialization in several keyways, including design optimization, which is required to fully realize the economic and technological advantages of those concepts. NEAMS capabilities also support development of advanced nuclear fuels, design and analysis of nuclear fuel experiments, and expansion of NRC confirmatory analysis capabilities.

• Nuclear Science User Facilities (NSUF) that provides access to world-class capabilities at nuclear facilities to aid the advancement of nuclear science and technology. This is supported by providing access, at no cost to the user, to state-of-the-art experimental irradiation testing and post-irradiation examination (PIE) facilities, as well as technical assistance, including the design and analysis of reactor experiments. This unique model is best described as a distributed partnership with each facility bringing exceptional capabilities and expertise to the relationship, including reactors, beamlines, state-of-the-art instruments, hot cells, and high-performance computational resources. Together, these capabilities and people create a nation-wide infrastructure that allows the best innovative ideas to be proven using the most advanced capabilities. Through NSUF, researchers and their collaborators are building on current knowledge to better understand the complex behavior of materials and fuels under irradiation.

NEET POC Table

POC	Area	Contact Information
Dirk Cairns-	AMMT	Dirk.Cairns-Gallimore@nuclear.energy.gov
Gallimore		
Dan Nichols	ASI	Daniel.Nichols@nuclear.energy.gov
Dave	NEAMS	David.Henderson@nuclear.energy.gov
Henderson		
Chris Barr	NSUF	Christopher.Barr@nuclear.energy.gov

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this FOA.

B. ESTIMATED FUNDING

DOE anticipates that, subject to the availability of future year appropriations, a total of \$3,200,000 in current fiscal year (FY) funds will be used to support awards under this FOA. Awards are fully funded in the first project year.

DOE is under no obligation to pay for any costs associated with preparation or submission of applications. DOE reserves the right to fund, in whole or in part, any, all, or none of the applications submitted in response to this FOA.

C. MAXIMUM AND MINIMUM AWARD SIZE

The total number of awards will depend on the number of meritorious applications and the availability of appropriated funds. The ceiling and floor for this FOA are the same. The maximum award size for a single award is \$800,000 over five years.

NOTE: Requested funding may vary year-by-year to accommodate the real and expected needs of the proposed research. The average DECP award supports the Principal Investigator (PI), research staff under the PI's direction (including postdocs and graduate students), equipment (including fabrication), and other necessary costs (materials, supplies, and travel).

D. EXPECTED NUMBER OF AWARDS

DOE anticipates up to 4 awards under this FOA. The exact number of awards will depend on the number of meritorious applications and the availability of appropriated funds.

E. ANTICIPATED AWARD SIZE

DOE expects the typical award size to be the maximum of \$800,000 over five years.

F. PERIOD OF PERFORMANCE

DOE anticipates making awards with a project period of 5 years.

G. TYPE OF APPLICATION

DOE will only accept new applications under this FOA.

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

In accordance with 2 CFR 910.126 - Competition, eligibility for award is restricted to eligible individuals from U.S. Institutions of Higher Education (IHE), in accordance with information described in Part III C of this FOA.

Institutions of Higher Education

Applications must be submitted through a U.S. academic institution. An employee with a joint appointment between a university and a DOE national laboratory can apply through the IHE if the IHE pays the applicant's salary and provides their benefits.

The act of submitting an application implies that the submitting institution has checked, confirmed, and certifies that the PI they are submitting for is eligible as outlined in Part III C.

To support the goal of building a clean and equitable energy economy, NE strives to contribute to the President's goal that 40% of the overall benefits of certain Federal investments flow to Disadvantaged Communities (DAC) (the Justice40 Initiative) ¹. The goal is to spur economic development and job creation in DACs throughout the U.S., through effective teams and/or partnerships with institutions, located in a disadvantaged community that may receive funding support from the project.

In support of the Justice40 Initiative, the White House has developed the Climate and Economic Justice Screening Tool (CEJST) tool to identify DACs. CEJST can be found at https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5. Applicants are encouraged to use CEJST to illustrate how their project supports DACs.

NE also strives to ensure energy equity through effective teams and/or partnerships with minority serving institution institutions (MSI), including Historically Black Colleges and Universities (HBCUs), and Tribal Colleges and Universities (TCUs).

Information on MSIs can be found at

https://www2.ed.gov/about/offices/list/ope/idues/eligibility.html#tips. This information predominately covers institutions that have been awarded grants through the Department of Education and does not include all institutions that may meet the definition of an MSI. This resource is not an exhaustive list of minority-serving institutions. For purposes of identifying MSIs in NE's application system, NE is using a directory based on 2020 U.S. Department of Education data, compiled by Rutgers University's Center for MSIs, which can be found at: https://www2.ed.gov/about/offices/list/ope/idues/2023eligibilitymatrix.xlsx. This list is also not an exhaustive list of MSIs but will be used as a starting point for self-identifying MSIs. If applicants believe that their institution qualifies as an MSI and is not listed, please contact neup@inl.gov with an explanation for how the university meets the conditions of being considered an MSI.

¹ The Justice40 initiative, established by E.O. 14008, sets a goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities. The Justice40 Interim Guidance provides a broad definition of disadvantaged communities (Page 2): https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf.

If applicants believe that their institution qualifies as an MSI and is not listed, please contact neup@inl.gov with an explanation of how the university meets the conditions of being considered an MSI.

B. COST SHARING

Cost sharing is not required.

C. ELIGIBLE INDIVIDUALS

Eligible individuals with the skills, knowledge, and resources necessary to carry out the proposed research as a PI are invited to work with their organizations to develop an application for assistance. Individuals from underrepresented groups, those with disabilities, and people from all geographic and economic backgrounds, are encouraged to apply.

PIs must adhere to the respective eligibility standards below:

- The PI must be an **untenured** assistant professor at a U.S. academic institution on the tenure track and no more than seven years beyond the date their doctorate was awarded as of the last day of January 2025.
- The PI must be employed in the eligible position as of the last day of January 2025.
- There can be no co-PIs and funding cannot be used to directly support "peer collaborators" or mentors.*
- The PI cannot have received a similar type of a federally funded early career award. Similar awards could include, but are not limited to, Office of Science Early Career Program and U.S. National Science Foundation Faculty Career Development Program (CAREER). If you have received another federally funded early career award and are not sure whether or not it is similar, please send your questions to neup@inl.gov.
- *A collaborator is an individual who makes a defined, material contribution that is critical to the success of the project. Any individual appearing in the project abstract, technical narrative, benefit of collaboration, coordination and management plan, or budget documents would be considered a collaborator on the application form.

Extensions to eligibility may be considered for individuals who have had a major life event requiring an extended absence from the workplace including, but not limited to, active military service, an absence due to personal disability, or an absence covered by the Family and Medical Leave Act. Verification stating validity of requests for extended eligibility must be made by including in the application a letter signed by the dean, research vice president, or equivalent official as of the application deadline. The request for an eligibility extension will be evaluated as part of the application assessment. Extensions may be granted for the duration of the extended absence.

Extensions to eligibility should be submitted for consideration at least 30 calendar days before the application deadline at neup@inl.gov.

DOE reserves the right to confirm that the candidate has a tenure-track appointment during the review process and/or during award negotiations.

Proposed research for this submission must have a scope that is different from any non-early career federally funded award.

Limited circumstances may require use of national laboratory facilities, a DOE/National Nuclear Security Administration (NNSA) Federally Funded Research and Development Center (FFRDC), if major facilities are not available on the applicant's campus. The costs associated with the use of a FFRDC may be covered as part of this application. If a FFRDC is used, then the FFRDC must provide a DOE field work proposal (FWP) and an authorization letter. Participation by national laboratories is restricted to activities to gain access to facilities not available at a PIs home institution. Activities must be structured so that there are no national laboratory co-PIs or collaborators.

Applications submitted to this DECP FOA will be awarded to the IHE listed and will typically not be transferred to another institution if the PI changes institutions. However, DOE may consider PI requests for transferring or sub awarding 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.

If a PI has a DECP award and accepts another similar federally funded early career award, the PI becomes ineligible for continued performance under their DECP award and must notify DOE immediately. Please see Section C above.

D. LIMITATIONS ON SUBMISSIONS

Only one application on behalf of a PI may be submitted to this FY 2025 FOA. A PI may not submit an application to more than three NE DECP FOAs as described in the eligibility criteria of Part III Section C.

Applicants may only receive one NE DECP award as outlined in the eligibility criteria of Part III Section C. Applicants are not eligible for award if the applicant has already been awarded other similar federally funded early career awards. Please see Section C above.

Research objectives for this opportunity must be distinct from current or past funded NE projects that the applicant has participated in as a lead PI, co-PI, or collaborator.

PART IV - APPLICATION AND SUBMISSION INFORMATION

A. APPLICATION PACKAGE

Electronic applications and instructions are available at <u>NEUP website</u>. To access these materials:

- (1) go to www.NEUP.gov;
- (2) select "Sign In" from the top right-hand corner of the screen;
- (3) enter your user credentials;
- (4) select "Applications" from the menu; and
- (5) click on "Create New Application" for the type of application you are creating.

Paper copies of the application package can be requested at:

INR Integration Office Attn: Pamela Rich PO Box 1625 MS 3730 Idaho Falls, Idaho 83415

Telephone: 208-526-4854

Fax: 208-526-1844

B. DOCUMENT FORMAT REQUIREMENTS

All non-budget documentation (use templates when provided) is to be prepared using standard 8.5" × 11" paper with 1-inch margins (top, bottom, left, right), using a font size no smaller than Times New Roman 11-point. This is a requirement for all pages included in the document (i.e., table of contents, references, etc.). The preferred file format is Adobe Portable Document Format (PDF) for all documents except for spreadsheets. All spreadsheets are to be uploaded in Excel file format to the online application. Do **NOT** lock any cells in the spreadsheet.

Applicants must comply with all pertinent page limitations. Any text (including references and data tables) in a document that does not adhere to the requirements listed above (except graphics, graphs, charts, and equations) will be removed from the document and will not be reviewed. DOE reserves the right to dismiss applications that violate formatting requirements, including locking spreadsheet cells. Signature blocks must be signed by the designated official.

Documents should be saved using the document naming suggestion at the bottom of each document description. The tracking ID will automatically be generated by the application system and can be found at the top of the application form under "Tracking ID."

DOE reserves the right to dismiss applications, which it deems, after initial review, to lack enough detail for reviewers to adequately judge technical merit. Applications submitted with corrupted, incomplete, or incorrect files may be dismissed without further review.

C. CONTENT AND FORM FOR APPLICATIONS

C.1 INTERIM CONFLICT OF POLICY FOR FINANCIAL ASSISTANCE

The DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy) can be found at Financial Assistance Letter No. FAL 2022-02 | Department of Energy. This policy is applicable to all non-Federal entities applying for, or that receive, DOE funding by means of a financial assistance award (e.g., a grant, cooperative agreement, or technology investment agreement) and, through the implementation of this policy by the entity, to each Investigator who is planning to participate in, or is participating in, the project funded wholly or in part under the DOE financial assistance award. DOE's interim COI Policy establishes standards that provide a reasonable expectation that the design, conduct, and reporting of projects funded wholly or in part under DOE financial assistance awards will be free from bias resulting from financial conflicts of interest or organizational conflicts of interest.

The applicant is subject to the requirements of the interim COI Policy and within each application for financial assistance, the applicant must certify that it is, or will be by the time of receiving any financial assistance award, compliant with all requirements in the interim COI Policy. The applicant must flow down the requirements of the interim COI Policy to any subrecipient non-Federal entities.

The applicant is required to disclose, manage, and report conflicts of interest as per the DOE interim COI Policy. Check the appropriate box on the application form certifying compliance with the COI Policy. If any disclosures need to be made, upload a COI document to the COI disclosure area of the application form.

Name File: 2025 COI Disclosure "Insert Tracking ID #"

C.2 SF-424 Research and Related (R&R)

Applicants shall complete the SF-424, R&R form, available at <u>www.NEUP.gov</u>, and upload a completed PDF copy of the form with the application.

Name File: 2025 SF424RR "Insert Tracking ID #"

C.3 Research and Related Other Project Information

Applicants shall complete items 1–6 on the R&R Other Project Information form available at www.NEUP.gov and upload a completed PDF copy of the form. Items 7-12 will be completed in the application form and do not need to be completed here.

Name File: 2025 R&R Other Project Information "Insert Tracking ID #"

C.4 Project Abstract

(Use Provided Template on Application Site)

The project abstract must contain a one-page summary of the proposed activity and be suitable

for dissemination to the public. It should be a self-contained document that identifies the name of the applicant; the project PI; the project title; a list of major deliverables; the scope and objectives of the project; a description of the project, including major tasks (phases, planned approach, etc.) and methods to be employed; the potential impact of the project (i.e., benefits, outcomes). This document must not include any proprietary or sensitive business information, as NE may make it available to the public after awards are made.

Name File: 2025 Project Abstract "Insert Tracking ID #"; 1-page limit

C.5 PROJECT NARRATIVE

The integrated research and education project narrative **must not exceed a page limit of 10 pages** of technical information, including title page, table of contents, charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard letter-size (8.5 x 11 inch) paper with 1-inch margins (top, bottom, left, and right). The font must not be smaller than 11-point. Merit reviewers will only consider the number of pages within the specified 10 pages. Unlimited references are allowable at the bottom of the narrative beyond the limited 10-page project narrative described above.

Do not include any internet addresses (URLs) that provide supplementary or additional information that constitutes a part of the application. Merit reviewers are not required to access internet sites; however, internet publications in a list of references will be treated identically to print publications.

Background/Introduction: Explanation of the importance and relevance of the proposed work, as well as a review of the relevant literature.

Project Objectives: This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.

Proposed Research and Methods: Identify the hypotheses to be tested (if any) and details of the methods to be used, including the integration of experiments with theoretical and computational research efforts.

Integration of Research and Educational Activities: Identify the educational aspects of the application and details about the methods and approaches the PI will use to integrate educational activities into overall project activities.

Leadership: Identify potential leadership in your area including, but not limited to, research performance, transformative nature of the work, creative vision, and leadership performance in scientific, technical, service-based activities, and educational areas.

Timetable of Activities: Timeline for all major activities including anticipated milestones and deliverables.

This comprises the project narrative for the project. It should contain enough background material in the introduction, including review of the relevant literature, to demonstrate sufficient knowledge of the state of the science. The majority of the narrative should be devoted to a description and justification of the proposed project, including details of the method to be used. It

should also include a timeline for the major activities of the proposed project and should indicate which project personnel will be responsible for which activities.

There should be no ambiguity about which personnel will perform particular parts of the project, and the time at which these activities will take place.

Name File: 2025 Project Narrative "Insert Tracking ID #"; 10-page limit

C.6 Vitae

- Provide a full biographical vitae for the PI listed in Section A of the R&R Budget form.
- Contact information.
- Education and Training: Provide institution, major/area, degree, and year for undergraduate, graduate, and postdoctoral training. List all education and training, foreign or domestic, at the applicant institution or elsewhere, whether or not remuneration is received, and, whether full-time, part-time, or voluntary.
- Research and Professional Experience: Beginning with the current position list, in chronological order (newest to oldest), professional/academic positions with a brief description. List all professional or institutional appointments, foreign or domestic, at the applicant institution or elsewhere, whether or not remuneration is received, and, whether full-time, part-time, or voluntary.
- Publications: Provide a complete list of publications. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically.
- Patents, copyrights, and software systems developed may be provided in addition to or substituted for publications.
- Synergistic Activities: Fully list any professional and scholarly activities related to the effort proposed.
- There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.

Name File: 2025 CV "Last Name of Individual" "Insert Tracking ID #"

Note: There is no page limit associated with this vitae document. An optional CV template (located at neup.gov) is available for use.

C.7 Career Objective Statement

The applicant will provide a career objective statement that outlines the PI's research interests and educational priorities and how they align with NE priorities.

Name File: 2025 Career Statement "Insert Tracking ID #"; 2-page limit

C.8 Endorsement Letter from Academic/Unit Department Head

The applicant will submit an endorsement letter from their respective department head that speaks to the following:

- PI's qualifications and leadership roles.
- Current and future commitments of the department and applicant to focus on nuclear energy research/education/service.

Note: Only required documents, as outlined in the FOA will be reviewed. Additional letters of recommendation may not be reviewed. An optional template (located at neup.gov) is available for use.

Name File: 2025 Endorsement "Insert Tracking ID #"; 2-page limit

C.9 Capabilities

Provide information on the following, as applicable:

- Infrastructure Requirements: The applicant shall identify the infrastructure (e.g., facilities, equipment, instrumentation, and other resources) required to execute the proposed scope of work, including their location, availability, capabilities, and how they will be used in the project. Describe the non-labor (e.g., facilities, equipment, and instrumentation) resources that are available and accessible to the applicant and are required to execute the scope of work. Describe any unique equipment and facilities that are needed, are accessible, and will be used to execute the scope of work. Discuss the adequacy of these resources and identify any gaps and how these will be addressed.
- Ability to comply with the required or proposed performance schedule, taking into consideration all existing commercial and governmental business commitments.

See the electronic application submission instructions for document guidance. This FOA allows the applicant to propose the purchase of any needed equipment to conduct the proposed work. If equipment purchases are proposed, describe comparable equipment, if any, already at the institution and explain why it cannot be used.

Name File: 2025 Capabilities "Insert Tracking ID #"; 2-page limit

C.10 SF-424 Research and Related (R&R) Lead Budget Form

The applicant must complete a separate budget for each year of support requested. The form will generate a cumulative budget for the total project period. You may request funds under any of the categories listed as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this FOA.

NOTE: Do NOT lock the cells when saving this document. Applications containing budget

forms with locked cells may not be evaluated further.

Name File: 2025 R&R Budget "Insert Tracking ID #"

C.11 Budget for DOE/NNSA Federally Funded Research and Development Center (FFRDC) Contractor (Required for National Laboratory participants)

If using a DOE/NNSA FFRDC contractor, the FFRDC must provide a DOE Field Work Proposal (FWP) in accordance with the requirements in DOE Order 412.1A, Administrative (Admin) Change 1, Work Authorization System dated 05/21/2014. FWPs can be obtained from respective laboratory financial administrators. FFRDCs are permitted to propose costs in accordance with their established DOE contracts (e.g., overhead, fees, etc.).

Name File: 2025 DECP FWP "Insert Tracking ID #"

C.12 Budget Justification

Provide a justification that explains all costs proposed in the budget. For additional guidance, the Budget Justification Supporting Documentation is available at NEUP.gov. Provide the required supporting information for all costs required to accomplish the project, including the following costs: labor; equipment; domestic and foreign travel; participant/trainees; material and supplies; publication; consultant services; automated data processing/computer services; subaward/consortium/contractual; equipment or facility rental/user fees; alterations and renovations; and indirect cost type. Provide any other information you wish to submit to justify the budget request.

A budget justification is required for the lead applicant and all sub-awardees. The justification can be combined into one document or submitted as separate files.

Foreign travel must be included in the budget justification request. Any foreign travel not included in the budget justification will not be approved upon issuance of the grant.

The following items of advice are offered to assist in developing a justification:

- 1. Organize the justification by listing items in the same categorical order as presented on the budget.
- 2. Ensure that the narrative matches the budget in dollar amounts and language.
- 3. Explain the line items. If costs are estimated, provide a basis for the estimate, including an estimate or prior ordering experience. Explain if costs are based on prior experience of similar activities. If a cost is based on the product of two numbers (such as a number of items at a per-item price), ensure that the math iscorrect.
- 4. If including an inflationary factor for future budget periods, explain the basis for the inflationary factor.

Provide any other information necessary to justify your budget request. If cost sharing is voluntarily proposed, provide an explanation of the source, nature, amount, and availability of any proposed cost sharing. Provide the details of all personnel (key or other) who will be working on the project, regardless of their source(s) of compensation. Explain their source(s) of compensation if it is not from this project. Include the indirect cost rate agreement and/or fringe

rate agreement as a part of the budget justification.

Name File: 2025 Budget Justification "Insert Tracking ID #"

C.13 Current and Pending Support

Current and pending support is intended to allow the identification of potential duplication, overcommitment, potential conflicts of interest or commitment, and all other sources of support. As part of the application, the PI and each senior/key person at the prime applicant and any proposed subaward level must provide a list of all sponsored activities, awards, and appointments, whether paid or unpaid; provided as a gift with terms or conditions or provided as a gift without terms or conditions; full-time, part-time, or voluntary; faculty, visiting, adjunct, or honorary; cash or in-kind; foreign or domestic; governmental or private-sector; directly supporting the individual's research or indirectly supporting the individual by supporting students, research staff, space, equipment, or other research expenses. All involvement in foreign government-sponsored talent recruitment programs must be identified in current and pending support.

For every activity, list the following items:

- The sponsor of the activity or the source of funding.
- The award or other identifying number.
- The title of the award or activity. If the title of the award or activity is not descriptive, add a brief description of the research being performed that would identify any overlaps or synergies with the proposed research.
- The total cost or value of the award or activity, including direct and indirect costs and cost share. For pending proposals, provide the total amount of requested funding.
- The award period (start date end date).
- The person-months of effort per year being dedicated to the award or activity.

If required to identify overlap, duplication of effort, or synergistic efforts, append a description of the other award or activity to the current and pending support.

Details of any obligations, contractual or otherwise, to any program, entity, or organization sponsored by a foreign government must be provided on request to either the applicant institution or DOE. Supporting documents of any identified source of support must be provided to DOE on request, including certified translations of any document.

The information may be provided in the format approved by the National Science Foundation (NSF), which may be generated by the Science Experts Network Curriculum Vitae (SciENcv), a cooperative venture maintained at https://www.ncbi.nlm.nih.gov/sciencv/, and is also available at https://www.nsf.gov/bfa/dias/policy/nsfapprovedformats/cps.pdf. The use of a format required by another agency is intended to reduce the administrative burden to researchers by promoting the use of common formats.

Each current and pending support disclosure must be signed and dated and include the following certification statement:

I, [Full Name and Title], certify to the best of my knowledge and belief that the information contained in this Current and Pending Support Disclosure Statement is true, complete, and accurate. I understand that any false, fictitious, or fraudulent information, misrepresentations, half-truths, or omissions of any material fact, may subject me to criminal, civil, or administrative penalties for fraud, false statements, false claims or otherwise. (18 U.S.C. §§ 1001 and 287, and 31 U.S.C. 3729-3733 and 3801-3812). I further understand and agree that (1) the statements and representations made herein are material to DOE's funding decision, and (2) I have a responsibility to update the disclosures during the period of performance of the award should circumstances change which impact the responses provided above.

If the fillable PDF NSF format is used, the individual must still include a signature, date, and a certification statement using the language included in the paragraph above. If the online version is used in SciENcv, a signature, date, and a certification statement must be attached as part of the document.

Definitions:

Current and pending support – (a) All resources made available, or expected to be made available, to an individual in support of the individual's RD&D efforts, regardless of (i) whether the source is foreign or domestic; (ii) whether the resource is made available through the entity applying for an award or directly to the individual; or (iii) whether the resource has monetary value; and (b) includes in-kind contributions requiring a commitment of time and directly supporting the individual's RD&D efforts, such as the provision of office or laboratory space, equipment, supplies, employees, or students. This term has the same meaning as the term Other Support as applied to researchers in National Security Presidential Memorandum 33 (NSPM-33): For researchers, Other Support includes all resources made available to a researcher in support of and/or related to all of their professional RD&D efforts, including resources provided directly to the individual or through the organization, and regardless of whether or not they have monetary value (e.g., even if the support received is only in-kind, such as office/laboratory space, equipment, supplies, or employees). This includes resource and/or financial support from all foreign and domestic entities, including but not limited to, gifts provided with terms or conditions, financial support for laboratory personnel, and participation of student and visiting researchers supported by other sources of funding.

Foreign Government-Sponsored Talent Recruitment Program. An effort directly or indirectly organized, managed, or funded by a foreign government, or a foreign government instrumentality or entity, to recruit science and technology professionals or students (regardless of citizenship or national origin, or whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to relocate physically to the foreign state for the above purpose. Some programs allow for or encourage continued employment at U.S. research facilities or receipt of federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose

their participation to U.S. entities. Compensation could take many forms including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

Senior/key personnel – an individual who contributes in a substantive, meaningful way to the scientific development or execution of a RD&D project proposed to be carried out with DOE award.

If the same or similar research application has been submitted to an early career program at another agency or foundation, that application must be included as a pending application, with a required explanation of the similarities and/or differences with the current DECP application. Additionally, if the application submitted to the other agency results in an accepted award, then the application submitted under this FOA is no longer eligible (Please see Section C above).

Name File: 2025 Current and Pending Support "Insert Tracking ID #"

C.14 Letter of Authorization for DOE/NNSA FFRDCs (Required for all national laboratory participants listed on the application regardless of funding level or tier)

The cognizant contracting officer for the FFRDC must authorize in writing the use of DOE/NNSA FFRDC and non-DOE/NNSA FFRDC contractors on the proposed project, and this authorization must be submitted with the application. The following wording is acceptable for this authorization. "Authorization is granted for the Fill-in 1: [Name] Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complimentary to the missions of the laboratory, will not adversely impact execution of the DOE/NNSA assigned programs at the laboratory, and will not place the laboratory in direct competition with the domestic private sector."

NOTE: Individual Letters of Authorization may be submitted as a blanket permission, if all FFRDC/non-FFRDC management has been notified of all submissions and all participants are identified. Identification of participants by name is to be included in the body or as a separate list.

Name File: 2025 DECP CO Authorization "Insert Tracking ID #"

C.15 Project/Performance Site Locations

Indicate the primary site where the work will be performed. If a portion of the project will be performed at any other site(s), identify the site location(s) in the blocks provided.

Use the "Next Site" button to expand the form to add additional Project/Performance Site Locations.

Note that the Project/Performance Site Congressional District is entered in the format of the 2-digit state code, followed by a dash and a 3-digit Congressional district code, for example VA - 001. Hover over this field for additional instructions.

Name File: 2025 Project Performance Sites "Insert Tracking ID #"

C.16 Disclosure of Lobbying Activities (SF-LLL)

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant, you must complete and submit Standard Form- LLL, "Disclosure Form to Report Lobbying."

Name File: 2025 SF-LLL "Insert Tracking ID #"

C.17 Certification and Assurances

Applicants must complete and attach the Certifications and Assurances form found on the DOE Financial Assistance Forms Page at: http://energy.gov/management/downloads/certifications-and-assurances-use-sf-424.

Name File: 2025 Cert & Assurances "Insert Tracking ID #"

C.18 Letters of Support or Commitment

C.18.1 Project Commitment to Energy Justice and Energy Equity (Optional)

Applicants are encouraged to describe how their projects will advance energy justice and energy equity in the Administration's objectives. Energy Justice objectives include contribution to the Justice40 Initiative. Energy equity objectives include, for example, effective teams and/or partnerships with MSIs, including Historically Black Colleges and Universities (HBCUs), and Tribal Colleges and Universities (TCUs), or institutions located in a disadvantaged community.

Justice40 Initiative. Applicants may include information on how the project supports the Justice40 Initiative, including for example:

- Extent to which the applicant identifies the following: specific and measurable benefits for disadvantaged communities; how the benefits will flow to disadvantaged communities; and how negative environmental impacts affecting disadvantaged communities would be mitigated. Benefits include (but are not limited to) measurable direct or indirect investments or positive project outcomes that achieve or contribute to the following in disadvantaged communities: (1) a decrease in energy burden; (2) a decrease in environmental exposure and burdens; (3) an increase in access to low-cost capital; (4) an increase in high-quality job creation, the clean energy job pipeline, and/or job training for individuals; (5) increases in clean energy enterprise creation and contracting (e.g., minority-owned or disadvantaged business enterprises); (6) increases in energy democracy, including community ownership; (7) increased parity in clean energy technology access and adoption; and (8) an increase in energy resilience.
 - Extent to which the project would contribute to the Federal Government's goal that 40% of certain Federal climate and clean energy investments flow to disadvantaged

- communities; the degree to which the proposed project provides funding to disadvantaged communities;
- Whether the entity is located in a disadvantaged community. The onus is on the applicant to self-identify whether it is located in a disadvantaged community or partners with an entity, located in a disadvantaged community;
- The degree to which the proposed project incorporates applicant or team members from disadvantaged communities; and
- Whether the proposed project may directly or indirectly benefit disadvantaged communities or has team member participants from disadvantaged communities.

Advance Energy Equity. Energy equity centers the concerns of underserved and socially and economically disadvantaged communities and aims to make energy more accessible, affordable, clean, and democratically managed for all communities. Applicants are also encouraged to describe how their projects or project teams contribute to energy equity. Applicants may include a section on how the projects ensures energy equity, including for example: the degree to which the proposed project incorporates team member diversity with participants from MSI's (e.g., HBCUs/Other Minority Serving Institutions); and/or partnerships with Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or Tribal nation, or seeks to address communities with environmental justice concerns that experience disproportionate and adverse human health or environmental burdens in accordance with Executive Order 14096.

Name File: 2024 EEandJustice40 "Insert ID#"

C.19 SUMMARY OF REQUIRED FORMS/FILES

Name of Document	Format	Signature Required
Conflict of Interest Statement Certification Conflict of Interest Disclosure (if applicable)	PDF	
SF-424 Research & Related	Form	Yes
Research and Related Other Project Information	Form	
Project Abstract	PDF	
Project Narrative	PDF	
Vitae	PDF	
Career Objective Statement	PDF	
Endorsement Letter from Academic/Unit Department Head	PDF	Yes

Name of Document	Format	Signature Required
Capabilities (2 pages)	PDF	
SF-424 (R&R) Lead Budget Form	Form (excel file)	
Budget for DOE National Laboratory Contractor or FFRDC, if applicable	PDF	Yes
Budget Justification	PDF	
Current and Pending Support	PDF	Yes
Authorization for DOE/NNSA FFRDCs, if applicable	PDF	Yes
Project/Performance Site Location	PDF	
SF-LLL Disclosure of Lobbying Activities	PDF	Yes
Certifications and Assurances	Form	Yes

D. REQUIRED DOCUMENTS IF SELECTED FOR NEGOTIATIONS

D.1 Environmental Checklist

An environmental checklist will be required at the time of award negotiations. If selected for award negotiations, please fill out the <u>Environmental Checklist</u>.

DOE's decision whether and how to distribute federal funds under this FOA is subject to the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321, et seq.). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website at https://www.energy.gov/nepa.

While NEPA compliance is a federal agency responsibility and the ultimate decisions remain with the federal agency, all recipients selected for an award will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their proposed project. If DOE determines certain records must be prepared to complete the NEPA review process (e.g., biological evaluations or environmental assessments), the recipient may be required to prepare the records and the costs to prepare the necessary records may be included as part of the project costs.

D.2 Data Management Plan (DMP)

This plan must be submitted for awarded project by October 31, 2025.

Provide a DMP that:

- 1. Describes whether and how data generated in the course of the proposed research will be shared and preserved. If the plan is not to share and/or preserve certain data, then the plan must explain the basis of the decision (for example, cost/benefit considerations, other parameters of feasibility, scientific appropriateness, or limitations discussed in #4 below). At a minimum, DMPs must describe how data sharing and preservation will enable validation of results, or how results could be validated if data are not shared or preserved.
- 2. Provides a plan for making all research data displayed in publications resulting from the proposed research open, machine-readable, and digitally accessible to the public at the time of publication. This includes data that are displayed in charts, figures, images, etc. In addition, the underlying digital research data used to generate the displayed data should be made as accessible as possible to the public in accordance with the principles stated above. This requirement could be met by including the data as supplementary information to the published article, or through other means. The published article should indicate how these data can be accessed.
- 3. Consults and references available information about data management resources to be used in the course of the proposed research. In particular, DMPs that explicitly or implicitly commit data management resources at a facility beyond what is conventionally made available to approved users should be accompanied by written approval from that facility.
- 4. DMPs must protect confidentiality, personal privacy, Personally Identifiable Information, and U.S. national, homeland, and economic security; recognize proprietary interests, business confidential information, and intellectual property rights; avoid significant negative impact on innovation, and U.S. competitiveness; and otherwise, be consistent with all applicable laws, regulations, and DOE orders and policies. There is no requirement to share proprietary data.

Name File "FY 2025 DMP "Insert Tracking ID #" 2-page limit

E. SUBMISSIONS FROM SUCCESSFUL APPLICANTS

If selected for award negotiations, DOE reserves the right to request additional or clarifying information for any reason deemed necessary including, but not limited to, the following:

- Point of contact information
- Indirect cost information
- Other budget information
- Name and phone number of the designated responsible employee for complying with national policies prohibiting discrimination (see 10 CFR 1040.5)
- Representation of limited rights data and restricted software, if applicable
- Commitment letter from third parties contributing to cost sharing, if applicable

- Environmental Checklist
- Data Management Plan

F. SUBMISSION DATES AND TIMES

F.1 Application Due Date

The application due date is printed on the cover of this FOA.

Applicants are encouraged to transmit their applications well before the deadline. Modifications to the application are not allowed after the application due date.

F.2 Late Submissions, Modifications, and Withdrawals

Applicants are responsible for submitting to DOE any/all required submissions specified in this FOA, including applications, statements of work, and any modifications or withdrawals thereto, by the date/time specified in the FOA.

Any required FOA submittal, modification, or withdrawal received at the Government office designated in the FOA after the exact time specified for receipt of that submittal is "late" and will not be considered.

A late modification of an otherwise successful submittal or application that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the required electronic submission, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes such that the required submittal cannot be received at the Government office designated for receipt of the submittal by the exact time specified in the FOA and urgent Government requirements preclude amendment of the FOA, the time specified for receipt of the required submittal will be deemed to be extended to the same time of day, as specified in the FOA, on the first work day on which normal Government processes resume.

Applications and other submittals may be withdrawn by written notice (sent electronically to NEUP@inl.gov) received at any time before the exact time set for receipt of that submittal. A required submittal may be withdrawn in person by an applicant or its authorized representative, if, before the exact time set for receipt of that submittal, the identity of the person requesting withdrawal is established and the person signs a receipt for the submittal.

G. INTERGOVERNMENTAL REVIEW

This program is not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

H. FUNDING RESTRICTIONS

Funding for all awards is contingent upon the availability of funds appropriated by Congress for the purpose of this program in current and future fiscal years.

I. PROHIBITION RELATED TO FOREIGN GOVERNMENT-SPONSORED TALENT RECRUITMENT PROGRAMS

a. Prohibition

Persons participating in a Foreign Government-Sponsored Talent Recruitment Program of a Foreign Country of Risk are prohibited from participating in projects selected for federal funding under this FOA. Should an award result from this FOA, the recipient must exercise ongoing due diligence to reasonably ensure that no individuals participating on the DOE-funded project are participating in a Foreign Government-Sponsored Talent Recruitment Program of a Foreign Country of Risk. Consequences for violations of this prohibition will be determined according to applicable law, regulations, and policy. Further, the recipient must notify DOE within five (5) business days upon learning that an individual on the project team is or is believed to be participating in a foreign government talent recruitment program of a foreign country of risk. DOE may modify and add requirements related to this prohibition to the extent required by law.

b. Definitions

- 1. Foreign Government-Sponsored Talent Recruitment Program. An effort directly or indirectly organized, managed, or funded by a foreign government to recruit science and technology professionals or students (regardless of citizenship or national origin, and whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to physically relocate to the foreign state for the above purpose. Some programs allow for or encourage continued employment at U.S. research facilities or receipt of Federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to U.S. entities. Compensation could take many forms including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.
- 2. Foreign Country of Risk. DOE has designated the following countries as foreign countries of risk: Iran, North Korea, Russia, and China. This list is subject to change.

J. FOREIGN NATIONAL PARTICIPATION

All applicants selected for an award under this FOA and project participants (including

subrecipients and contractors) who anticipate involving foreign nationals in the performance of an award may be required to provide DOE with specific information about each foreign national to satisfy requirements for foreign national participation. A "foreign national" is defined as any person who is not a U.S. citizen by birth or naturalization. The volume and type of information collected may depend on various factors associated with the award. DOE concurrence may be required before a foreign national can participate in the performance of any work under an award.

DOE may elect to deny a foreign national's participation in the award. Likewise, DOE may elect to deny a foreign national's access to DOE site, information, technologies, equipment, programs, or personnel.

K. FOREIGN TRAVEL

If international travel is proposed for your project, please note that your organization must comply with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. § 40118), commonly referred to as the "Fly America Act," and implementing regulations at 41 CFR 301-10.131 through 301-10.143. The law and regulations require air transport of people or property to, from, between, or within a country other than the U.S., the cost of which is supported under this award, to be performed by or under a cost-sharing arrangement with a U.S. flag carrier if service is available. Foreign travel costs are allowable only with the written prior approval of the contracting officer assigned to the award.

L. COST PRINCIPLES

Costs must be allowable, allocable, and reasonable in accordance with the applicable Federal cost principles referenced in 2 CFR part 200, as adopted and amended by 2 CFR part 910. The cost principles for for-profit organizations are in FAR part 31.

M. PRE-AWARD COSTS

Recipients may charge to an award resulting from this announcement pre-award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award if the costs are allowable in accordance with the applicable Federal cost principles. Recipients must obtain the prior approval of the contracting officer for any pre-award costs that are for periods greater than this 90-day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

N. POTENTIALLY DUPLICATIVE FUNDING NOTICE

If the applicant or project team member has other active awards of federal funds, the applicant must determine whether the activities of those awards potentially overlap with the activities set forth in its application to this FOA. If there is a potential overlap, the applicant must notify DOE in writing of the potential overlap and state how it will ensure any project funds (i.e., recipient cost share and federal funds) will not be used for identical cost items under multiple awards. Likewise, for projects that receive funding under this FOA, if a recipient or project team member

receives any other award of federal funds for activities that potentially overlap with the activities funded under the DOE award, the recipient must promptly notify DOE in writing of the potential overlap and state whether project funds from any of those other federal awards have been, are being, or are to be used (in whole or in part) for one or more of the identical cost items under the DOE award. If there are identical cost items, the recipient must promptly notify the DOE Contracting Officer in writing of the potential duplication and eliminate any inappropriate duplication of funding.

O. FOREIGN COLLABORATION CONSIDERATIONS

Consideration of new collaborations with foreign entities and governments. The recipient will be required to provide DOE with advanced written notification of any potential collaboration with foreign entities or governments in connection with its DOE-funded award scope. The recipient will then be required to await further guidance from DOE prior to contacting the proposed foreign entity or government regarding the potential collaboration or negotiating the terms of any potential agreement.

Existing collaborations with foreign entities and governments. The recipient will be required to provide DOE with a written list of all existing foreign collaborations in which has entered in connection with its DOE-funded award scope.

Description of collaborations that should be reported. In general, a collaboration will involve some provision of a thing of value to, or from, the recipient. A thing of value includes but may not be limited to all resources made available to, or from, the recipient in support of and/or related to the DOE award, regardless of whether or not they have monetary value. Things of value also may include in-kind contributions (such as office/laboratory space, data, equipment, supplies, employees, students). In-kind contributions not intended for direct use on the DOE award but resulting in provision of a thing of value from or to the DOE award must also be reported. Collaborations do not include routine workshops, conferences, use of the recipient's services and facilities by foreign investigators resulting from its standard published process for evaluating requests for access, or the routine use of foreign facilities by awardee staff in accordance with the recipient's standard policies and procedures.

P. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

P.1 Where to Submit

Note: Submit applications through www.neup.gov to be considered for award.

Submit electronic applications through the "Applications" function at www.neup.gov. For problems with completing the registration process or submitting applications, call 208-526-4854 or email NEUP@inl.gov.

P.2 Application Validity Timeframe

By submitting an application in response to this FOA, applicants agree that their applications are valid for at least one year from the date set forth for receipt of applications to this FOA. DOE reserves the right (with concurrence of the applicant) to use the submitted application(s) to make

additional awards for up to one year, even after DOE's initial selection announcement has occurred.

PART V - APPLICATION REVIEW INFORMATION

A. CRITERIA

A.1 Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for the award; (2) the information required by the FOA has been submitted; (3) all mandatory requirements are satisfied; (4) the proposed project is relevant to the NE mission; (5) the proposed project is responsive to the objectives of the FOA (see Part I, Section A.); and (6) the proposed project is not duplicative of programmatic work. Applications that fail to pass the initial review may be eliminated from further consideration.

A.2 Merit Review Criteria

Criterion 1 (33.34%)— Advances the State of Knowledge and Understanding and Addresses Gaps in Nuclear Energy Science and Engineering Research Areas: The technical merit of the proposed research will be evaluated, including the extent to which the project advances the state of knowledge and understanding and addresses gaps in nuclear energy science and engineering research areas. Evaluation will consider how important the proposed project is to advance knowledge and understanding within the topic area and how well the proposed project advances, discovers, or explores creative, original, or potentially transformative concepts that have broader impact.

Criterion 2 (33.33%) – Demonstrates an Integrated Research, Education and Service Plan to Address Broader Impacts to Society: The extent to which the plan advances nuclear energy related research, educational outcomes and addresses societal broader impacts. The overall integration of the research and educational aspects of the application. The extent to which the research and education vision supports the development of the faculty member, research infrastructure, curriculum, and research that will advance the applicant's research focus while training the next generation of nuclear energy professionals. Service impacts can include, but are not limited to, leadership for student, university, and community programs, STEM outreach, and diversity, equity, and inclusion efforts.

Criterion 3 (33.33%)— Qualifications and Potential for Leadership Within the Nuclear Energy Community: The extent to which the applicant has the necessary knowledge, skills, and abilities to execute the project, the probability that the PI will be able to provide direct research contributions, the potential for scientific leadership and creative vision, and the potential for leadership in the research and technical area.

B. REVIEW AND SELECTION PROCESS

B.1 Merit Review

Applications that pass the initial review will be subjected to a formal merit review and will be evaluated based on the criteria outlined in this FOA.

B.2 Program Policy Factors

The Selection Official may consider the following program policy factors in the selection process:

- Degree to which proposed project optimizes/balances/maximizes use of available DOE funding to achieve DOE program goals and objectives, including how projects support DOE research. It may also include research portfolio diversity, geographic distribution and/or how the projects support other complementary efforts that, when taken together, will best achieve program research goals and objectives;
- Application selection may optimize appropriate mix of projects to best achieve DOE research goals and objectives;
- Cost/Budget considerations, including availability of funding;
- Extent that the applicant has awards in progress or not completed (e.g., unsubmitted final report, where applicable, by the milestone due date, from DOE, from a previous year's FOA, or has existing no cost extensions);
- Demonstrated ability of the applicant to successfully complete projects, including relevant prior projects, and do so within budget and within the specified timeframe of the award;
- Applicability across multiple nuclear technologies;
- Potential to enhance U.S. nuclear infrastructure;
- Consistent and conformant work proposed in the application with current NE Congressional appropriations;
- Projects that contribute to energy equity; and
- Projects that support the Justice 40 Initiative.

Any of the above factors may be independently considered by the Selection Official (SO) in determining the optimum mix of applications that will be selected for support. These factors, while not indicators of the application's merit, may be essential to the process of selecting the application(s) that, individually or collectively, will best achieve the program objectives. Such factors are often beyond the control of the applicant.

Applicants should recognize that some very good applications might not receive an award because of program priorities and available funding. Therefore, the above factors may be used by the SO to assist in determining which applications shall receive DOE funding support.

B.3 Selection

The SO will consider the findings of the merit and risk reviews and may consider any of the Program Policy Factors described above.

B.4 Review of Risk

Pursuant to 2 CFR subpart 200.205, DOE will conduct an additional review of the risk posed by

applications submitted under this FOA. Such review of risk will include:

- Quality of the application;
- Reports and findings from audits performed under 2 CFR part 200 or OMB Circular A-133; and
- Systems maintained under 2 CFR part 180.

DOE may make use of other publicly available information and the history of an applicant's performance under DOE or other Federal agency awards.

Applicants with no prior performance of DOE awards may be asked to provide information about their financial stability and or their ability to comply with the management standards of 2 CFR part 200.

Research, Technology and Economic Security Risk Reviews. Further, as DOE invests in critical infrastructure and funds critical and emerging technology areas, DOE also considers possible vectors of undue foreign influence in evaluating risk. If high risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the applicant. As part of the research, technology, and economic security risk review, DOE may contact the applicant and/or proposed project team members for additional information to inform the review. This risk review is conducted separately from the technical merit review.

B.5 Reporting of Matters Related to Recipient Integrity and Performance

DOE, prior to making a federal award with a total amount of federal share greater than the simplified acquisition threshold, is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. § 2313).

The applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM. The applicant may comment on any information about itself which a federal awarding agency previously entered that is currently in the designated integrity and performance system accessible through SAM.

DOE will consider any written comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.205 - Federal awarding agency review of risk posed by applicants.

B.6 Government Discussions with Applicant

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to the following: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 2 CFR part 200 as modified by 2 CFR part 910 (DOE Financial Assistance Regulation); and/or (4) special terms and conditions are required. Failure to resolve

satisfactorilythe issues identified by the Government will preclude award to the applicant.

3. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates making selection announcements no later than March 2025. DOE reserves the right to make additional award selections using applications submitted in response to the FOA. Award(s) for this project are subject to the availability of Federal funding.

DOE intends to have projects supported under this FOA begin work August 1, 2025.

PART VI – AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES

A.1 Applicants Selected for Award Negotiations

Successful applicants will receive written notification that they have been selected for award negotiations. Receipt of a notification letter selecting an application for award negotiations does not authorize the applicant to commence performance of the project. If an application is selected for award negotiations, it is not a commitment by DOE to issue an award nor is it a guarantee of federal government funding. Applicants do not receive an award unless and until award negotiations are complete and the Contracting Officer executes the funding agreement, accessible by the prime recipient in FedConnect.

Applicants must designate a primary and a backup point-of-contact in the SF424 application document with whom DOE will communicate to conduct award negotiations. The applicant must be responsive during award negotiations (i.e., provide requested documentation) and meet the negotiation deadlines. If the applicant fails to do so or if award negotiations are otherwise unsuccessful, DOE will cancel the award negotiations and rescind the selection. DOE reserves the right to terminate award negotiations at any time for any reason.

A.2 Unsuccessful Applicants

DOE will notify in writing each applicant whose application has not been selected for award. The notification will provide an explanation of why the application was not selected.

A.3 Nondisclosure and Confidentiality Agreements Representations

In submitting an application in response to this FOA, the applicant represents that:

- 1. It does not, and will not, require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contractors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.
- 2. It does not, and will not, use any Federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:
 - a. "These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights or liabilities created by existing statue or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive Orders and statutory provisions are incorporated into this agreement and are

- controlling."
- b. The limitation above shall not contravene requirements application to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

Notwithstanding the provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the U.S. Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity, unless specifically authorized to do so by the U.S. Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress or to an authorized official of an executive agency or the Department of Justice that are essential to reporting a substantial violation of law.

A.4 Notice of Award

An assistance agreement issued by the Contracting Officer is the authorizing award document. It normally includes, either as an attachment or by reference, the following: (1) special terms and conditions; (2) applicable program regulations, if any; (3) application as approved by DOE; (4) DOE assistance regulations at 2 CFR part 200, as amended by 2 CFR part 910; (5) National Policy Assurances To Be Incorporated As Award Terms; (6) Budget Summary; and (7) Federal Assistance Reporting Checklist, which identifies the reporting requirements.

A.5 Participants and Collaborating Organizations

If selected for award negotiations, the selected applicant must submit a list of personnel who are proposed to work on the project, both at the recipient and subrecipient level and a list of proposed collaborating organizations prior to award. Recipients will have an ongoing responsibility to notify DOE of changes to the personnel and collaborating organizations and submit updated information during the life of the award.

A.6 Current and Pending Support

If selected for award negotiations, within 30 days of the selection notice the selectee must submit: 1) current and pending support disclosures and resumes for any new PIs or senior/key personnel, and 2) updated disclosures if there have been any changes to the current and pending support submitted with the application. Throughout the life of the award, the recipient has an ongoing responsibility to submit: 1) current and pending support disclosure statements and resumes for any new PI and senior/key personnel, and 2) updated disclosures if there are changes to the current and pending support previously submitted to DOE.

A.7 Post Selection Information Requests

If selected for award negotiations, DOE reserves the right to require that selected applicants provide additional or clarifying information regarding the application submissions, the project, the project team, the award requirements, and any other matters related to anticipated award.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

B.1 Administrative Requirements

The administrative requirements for DOE grants are contained in 2 CFR part 200, as amended by 2 CFR part 910 (See: http://ecfr.gov). Grants made to universities, non-profits, and other entities subject to Title 2 CFR are subject to the Research Terms and Conditions located on the National Science Foundation website at http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp.

B.2 Unique Entity ID and SAM Requirements

Additional administrative requirements for DOE grants are contained in 2 CFR part 25 (see http://www.ecfr.gov/cgi-bin/ECFR?page=browse). Prime awardees must be registered in the System for Award Management (SAM) before submitting an application and must continue to maintain a SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by DOE under this FOA. Primes and subawardees at all tiers must obtain Unique Entity Identifier (UEI) numbers at and provide the UEI to the prime awardee before the subaward can be issued. The prime will provide this valid UEI in its application. DOE may not make a Federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time DOE is ready to make the award, DOE may determine that the applicant is not qualified to receive an award and use that determination as a basis for making an award to another applicant.

B.3 Subaward and Executive Reporting

Additional administrative requirements necessary for DOE grants to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR part 170 (see http://www.ecfr.gov/cgi-bin/ECFR?page=browse). Prime awardees must register with the new FFATA Subaward Reporting System (FSRS) database and report the required data on their first-tier subawardees. Prime awardees must report the executive compensation for their own executives as part of their registration profile in the SAM.

B.4 Special Terms and Conditions and National Policy Requirements

The DOE special terms and conditions for use in most grants are located at http://energy.gov/management/office-management/operational-management/financial-assistance-forms under Award Terms.

If the Federal share of any Federal award includes more than \$500,000 over the period of performance, post award reporting requirements reflected in 2 CFR part 200, Appendix XII—

Award Term and Condition for Recipient Integrity and Performance Matters, may also apply to any resultant award made under this FOA.

The National Policy Assurances to be incorporated as award terms are located at http://www.nsf.gov/bfa/dias/policy/rtc/appc.pdf and at http://energy.gov/management/office-management/office-management/office-management/office-financial-assistance-forms under Award Terms.

Quality assurance (QA) to be incorporated as award terms (applicable to educational institutions only).

While DOE will normally rely on the institution's QA system, below are general guidelines that those systems should adhere to, as applicable, for the type of work being done. No separate deliverable is required by this provision unless the institution's existing QA systems are not compliant with these guidelines or in the case that the institution identifies that the work to be performed has any special or unique QA requirements. The DOE has the right of access to the university facilities and records for surveillance or inspection. Any surveillance or inspections will be coordinated with the PI.

• Test Planning, Implementation, and Documentation (Research Planning)

- Test methods and characteristics shall be planned and documented; and the approaches and procedures recorded and evaluated. Characteristics to be tested and test methods shall be specified. The test results shall be documented and their conformance to acceptance criteria evaluated.
- Documentation shall be developed to ensure replication of the work. The
 researcher/developer shall document work methods and results in a complete and
 accurate manner. The level of documentation shall be sufficient to withstand a
 successful peer review. Protocols on generation and safeguarding of data and process
 development from research shall be developed for consistency of R&D work.
- Laboratory notebooks shall be controlled by a university-documented procedure/process. Also, the process for development of intellectual property documentation shall be controlled under university document control procedures/processes.
- If the university identifies any special or unique QA requirements for Test Planning,
 Implementation, and Documentation, the university shall submit a Test Plan/Research
 Plan to the funding organization for review and concurrence prior to use.

• Equipment Calibration and Documentation

The researcher shall specify the requirements of accuracy, precision, and repeatability of measuring and test equipment (M&TE). Depending upon the need for accuracy, precision, and repeatability of M&TE used in research, standard university-documented procedures shall be implemented. During the process development stage, and for all R&D support activities, M&TE shall be controlled. The degree of control shall be dependent on the application of the measurement. The university shall have available calibration records documenting instrument calibration to a national standard.

Procurement Document Control

University-documented procurement document control procedures/processes shall be implemented if results of initial research work are expected in the next stage of work and if the pedigree of materials being used could influence the usefulness of the research work results. Procurement document specifications shall be controlled. For development and support activities, the level of procurement document control shall be applied to support a design basis, i.e., engineering design system criteria. If procurement document control

requirements apply, the university shall have a documented procedure/process for control of suspect/counterfeit items (S/CI) and have material pedigree records available for submission for DOE review.

• Training and Personnel Qualification

Personnel performing research activities shall be trained per university-documented requirements to ensure work is being conducted properly to prevent rework or the production of unacceptable data. The university shall have personnel training records available for submission for DOE review.

Records

In many cases, the notebook or journal of the researcher is the QA record. These documents shall be controlled in accordance with university-documented procedure/process, e.g., maintain notebook as a controlled document, maintain copies of critical pages or access-controlled filing when not in use to preserve process repeatability and the QA record. Electronic media may be used to record data and shall be subject to documented administrative controls for handling and storage of data. Work activity records shall be maintained by the university and available for DOE review upon request within sixty (60) days of completion of the work scope.

• Data Acquisition/Collection and Analysis

When gathering data, the researcher shall ensure that the systems and subsystems of the experiment are operating properly. Software systems used to collect data and operate the experiment requires verification that it meets functional requirements prior to collection of actual data. Data anomalies require investigation. When performing data analysis, define (1) assumptions and the methods used; (2) the results obtained so that independent qualified experts can evaluate how data was interpreted; (3) methods used to identify and minimize measurement uncertainty; (4) the analytical models used; and (5) whether the R&D results have been documented adequately and can be validated.

Peer Review

Peer reviews shall be performed in accordance with peer review best practices. The peer reviews shall be documented and maintained by the university. Peer review documentation and results shall be provided to DOE.

B.5 Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards.

B.6 Lobby Restrictions

By accepting funds under this award, the applicant agrees that none of the funds obligated on the award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

B.7 Corporate Felony Conviction and Federal Tax Liability Representations

In submitting an application in response to this FOA, the applicant represents that:

- It is not a corporation that has been convicted (or had an officer or agent of such corporation acting on behalf of the corporation convicted) of a felony criminal violation under any Federal law within the preceding 24 months.
- It is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

For purposes of these representations the following definitions apply:

- A corporation includes any entity that has filed articles of incorporation in any of the 50 states, the District of Columbia, or the various territories of the U.S. (but not foreign corporations).
- It includes both for-profit and non-profit organizations.

B.8 Statement of Federal Stewardship

The recipient's responsibilities are listed below:

- Complying with all award requirements, including performing the activities supported by this award, including providing the required personnel, facilities, equipment, supplies and service.
- Defining approaches and plans as may be required by this award, submitting the plans to DOE for review, and incorporating DOE's comments.
- Managing and conducting the project activities, including coordinating with DOE management and operating (M&O) contractor(s) as required and as proposed in the recipient's project plan on activities performed under the M&O contract(s) that are related to the project.
- Attending annual program review meetings and reporting project status, if requested by the program.
- Submitting technical reports as stated in the Federal Assistance Reporting Checklist and incorporating DOE comments.
- Completing reporting requirements as outlined in the instructions provided in the awards Attachment B "Federal Assistance Reporting Checklist and Instructions" including:
 - o NE Program Information Collection System (PICS:NE): PIs are required to complete reporting requirements as outlined in the instructions provided in the awards Attachment B "Federal Assistance Reporting Checklist and Instructions". Information provided in required award reporting will be utilized to populate PICS:NE (PICS:NE data entry will be done by DOE using information provided by the PI). PIs may be asked by the DOE PICS:NE representative for additional information during the initial work package setup process to accurately document the project plan, as well as through the award's project period to populate

information in PICS:NE. PIs may be requested to provide additional assistance for clarification purposes in assuring accuracy of the information being entered into PICS:NE.

of uncosted obligations on financial assistance awards in the DOE accounting system to assist DOE in accomplishing more accurate project management and to accurately recognize Department liabilities to the recipient. DOE personnel do this internally by subtracting paid costs and any costs accrued (yet to be paid incurred costs of the recipient) from the amounts obligated on the financial assistance award. In accomplishing this, DOE may request the recipient provide additional cost accrual information to accurately estimate/document the accrual in the DOE accounting system. If such information is needed, it will typically be done on awards over \$1M and DOE will normally do this using an e-mail to the recipient requesting the recipient identify the dollar value of work it has performed each month but not yet invoiced (or done a Treasury system draw on) as of month end. Recipients will cooperate with DOE in providing the needed cost accrual information.

NOTE: There are limitations on recipient responsibilities and authorities in the performance of the project activities. Performance of the project activities must be within the scope of the Statement of Objectives, the terms and conditions of the grant, and the funding and schedule constraints.

B.9 Fraud, Waste, and Abuse

The mission of the DOE Office of Inspector General (OIG) is to strengthen the integrity, economy, and efficiency of the Department's programs and operations, including deterring and detecting fraud, waste, abuse, and mismanagement. The OIG accomplishes this mission primarily through investigations, audits, and inspections of DOE activities to include grants, cooperative agreements, loans, and contracts.

The OIG maintains a hotline for reporting allegations of fraud, waste, abuse, or mismanagement. To report such allegations, please visit https://www.energy.gov/ig/ig-hotline.

Additionally, recipients of DOE awards must be cognizant of the requirements of 2 CFR 200.113 Mandatory disclosures, which states:

The non-Federal entity or applicant for a federal award must disclose, in a timely manner, in writing to the Federal awarding agency or pass-through entity all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Non-Federal entities that have received a federal award including the term and condition outlined in appendix XII of 2 CFR Part 200 are required to report certain civil, criminal, or administrative proceedings to SAM.gov. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.339. (See also 2 CFR part 180, 31 U.S.C. § 3321, and 41 U.S.C. § 2313.) [85 FR 49539, Aug. 13, 2020)

Applicants and subrecipients (if applicable) are encouraged to allocate sufficient costs in the project budget to cover the costs associated for personnel and data infrastructure needs to support

performance management and program evaluation needs, including but not limited to independent program and project audits to mitigate risks for fraud, waste, and abuse.

C. REPORTING

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. A sample checklist is available at http://energy.gov/management/office-management/operational-management/financial-assistance-forms under Award Forms.

PART VII – QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the content of this FOA must be submitted to the Agency Contact listed in Part VII, Section B. For clarification on program scope areas, applicants can communicate directly with the Program Points of Contact listed in Part I, Section B. Questions pertaining to items such as application process, eligibility, or application document requirements should be directed to NEUP@inl.gov.

Answers to submitted questions containing information about the FOA or the FOA process that would be necessary for the preparation of applications will be posted to www.NEUP.gov as soon as practical. DOE will try to respond to a question within three business days unless a similar question and answer have already been posted on the website.

Interested parties are encouraged to ask questions as early in the FOA process as possible. Questions and comments concerning this FOA shall be submitted not later than five business days prior to the application due date. Questions submitted after that date may not allow the Government sufficient time to respond.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process, must be directed to NEUP@inl.gov.

B. AGENCY CONTACTS

Name: Mr. Andrew Ford E-mail: fordaj@id.doe.gov

C. INFORMATIONAL WEBINAR

DOE holds a webinar each year to discuss the structure and execution of this FOA, including major updates from previous years, including topic areas. Applicants can watch and participate in the live webinars and submit questions, to be answered in real time through the webinar interface. Registration information and webinar presentations are available on www.NEUP.gov for review by applicants.

PART VIII - OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on www.FedConnect.net and www.Grants.gov, and will also be posted as a courtesy on www.NEUP.gov. It is recommended that the website is checked frequently at www.NEUP.gov to ensure timely notice of any modifications or other announcements.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by anyone other than the Contracting Officer, either explicit or implied, is invalid.

Funding for all awards is contingent upon the availability of funds appropriated by Congress for the purpose of this program.

D. PROPRIETARY APPLICATION INFORMATION

Patentable ideas, trade secrets, proprietary or confidential commercial or financial information, disclosure of which may harm the applicant, should be included in an application only when such information is necessary to convey an understanding of the proposed project. The use and disclosure of such data may be restricted, provided the applicant includes the following legend on the first page of the project narrative and specifies the pages of the application which are to be restricted:

"The data contained in pages [Insert pages] of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award. This restriction does not limit the government's right to use or disclose data obtained without restriction from any source, including the applicant."

To protect such data, each line or paragraph on the pages containing such data must be specifically identified and marked with a legend similar to the following:

"The following contains proprietary information that (name of applicant) requests are not to be released to persons outside the Government, except for purposes of review and evaluation."

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

In conducting the merit review evaluation, the Government may seek the advice of qualified non-Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting an application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest (COI) and non-disclosure agreements prior to reviewing an application. Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), recipient may elect to retain title to their subject inventions. Rights in Technical Data. The Government and recipient have unlimited rights in technical data created under a DOE agreement. Delivery or third-party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE's own needs or to ensure the commercialization of technology developed under a DOE agreement.

Copyright. The recipient and subrecipients may assert copyright in copyrightable works, such as software, first produced under the award without DOE approval. When copyright is asserted, the government retains a paid-up nonexclusive, irrevocable worldwide license to reproduce, prepare derivative works, distribute copies to the public, and to perform publicly and display publicly the copyrighted work. This license extends to contractors and others doing work on behalf of the government.

<u>U.S. Manufacturing</u>. On June 7, 2021, in connection with the 100-day review of critical supply chains as directed under E.O. 14017, America's Supply Chains, the DOE Science and Energy Determination of Exceptional Circumstances (S&E DEC) was announced as part of a series of new policy actions to support U.S. job creation and bolster the domestic manufacturing supply chain. As a result, the Intellectual Property Provisions requires that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the U.S. unless the recipient can show to the satisfaction of DOE that it is not commercially feasible.

The standard DOE financial assistance intellectual property provisions applicable to various types of recipients are located at:

https://energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards

G. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES

<u>Political Activities</u>. Eligible activities under this program include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those that encourage or support political activities such as the collection and dissemination of information related to potential, planned, or pending legislation.

<u>Export Controls</u>. The U.S. government regulates the transfer of information, commodities, technology, and software considered to be strategically important to the U.S. to protect national

security, foreign policy, and economic interests without imposing undue regulatory burdens on legitimate international trade. There is a network of federal agencies and regulations that govern exports that are collectively referred to as "Export Controls." All recipients and subrecipients are responsible for ensuring compliance with all applicable U.S. Export Control laws and regulations relating to any work performed under a resulting award.

The recipient must immediately report to DOE any export control violations related to the project funded under the DOE award, at the recipient or subrecipient level, and provide the corrective action(s) to prevent future violations.

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment. As set forth in 2 CFR 200.216, recipients and subrecipients are prohibited from obligating or expending project funds (federal funds and recipient cost share) to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Section 889 of Public Law 115-232, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

See Public Law 115-232, Section 889, 2 CFR 200.216, and 2 CFR 200.471 for additional information.

H. NO-COST TIME EXTENSIONS

Unilateral no-cost time extensions will NOT be permitted to awards made under this FOA. All no-cost time extensions must provide adequate justification and receive approval from the Contracting Officer. No-cost time extensions should be requested as soon as the need is identified within the last year of the award.

No-cost time extensions on existing NE funded projects must be requested between October 1-April 15. Any request outside of this period will need to be substantially justified and receive approval from the Contracting Officer. One no-cost time extension request may be granted for up to 12 months pending review and approval. No-cost time extensions must be submitted prior to the deadline to NEUP@inl.gov.

I. REBUDGET REQUEST

Any rebudget request where the cumulative amount of such change is expected to exceed 10 percent of the total budget as last approved by the Federal awarding agency must be requested in writing (see 2 CFR subpart 200.308). The request must include a detailed budget justification, and an updated budget in the same format for which was included in the original application. Any request for the purchase of equipment exceeding \$5K must be requested in writing to include a valid quote and justification for purchase.

Budget forms can be found at https://www.energy.gov/management/downloads/sf-424-research-and-related-budget-rr

J. CONFERENCE SPENDING

The recipient shall not expend any funds on a conference not directly and programmatically related to the purpose for which the grant was awarded that would defray the cost to the U.S. government of a conference held by any executive branch department, agency, board, commission, or office for which the cost to the U.S. government would otherwise exceed \$20,000, thereby circumventing the required notification by the head of any such executive branch department, agency, board, commission, or office to the inspector general (or senior ethics official for any entity without an inspector general), of the date, location, and number of employees attending such conference.