

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



U. S. Department of Energy

Idaho Operations Office

**Fiscal Year 2024 University Nuclear Research
Infrastructure Revitalization**

Funding Opportunity Announcement: DE-FOA-0003042

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Amendment 001: December 21, 2023

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(video links and presentations will be available at www.NEUP.gov)

Application Due Date: February 14, 2024, at 5:00 p.m. Eastern Time

Amendment 001: This amendment makes the following changes:

- Part I.C: Moved unallowed cost section from B. to C and added “Indirect costs are not allowed for the 50% of the budget that must go to equipment and upgrades (e.g., physical infrastructure/equipment).
- Part I.D: changed cooperative agreement to grant.
- Part IV.D.10.4: Provided further instruction for the budget justification.

Registration Requirements

There are several one-time actions applicants must complete in order to submit an application in response to this Announcement, including registering with the System for Award Management (SAM), obtaining a Unique Entity Identifier (UEI) number, and creating an account on the NEUP.gov website at: www.NEUP.gov. Applicants that 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.

The applicant must complete or have already completed the following actions:

- (1) Register with the SAM: <https://www.sam.gov/>. For more information about SAM registration for applicants please refer to: <https://www.sam.gov/content/entity-landing>
- (2) Obtain the Unique Entity Identifier (ID) generated 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 funding opportunity announcement (FOA) must be submitted using the contact information found at Part VII, Section B, of this FOA. DOE will try to respond to a question within three (3) business days unless a similar question and answer have 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

Instructions and a copy of the FOA can be found at www.NEUP.gov.

Electronic applications and instructions are available at the NEUP 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 NEUP site registration, contact the Innovative Nuclear Research (INR) Integration Office 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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LIST OF ACRONYMS

CEJST	Climate and Economic Justice Screening Tool
CFR	Code of Federal Regulations
CINR	Consolidated Innovative Nuclear Research
COI	Conflict of Interest
DE	Department of Energy (FOA Number)
DMP	Data Management Plan
DOE	Department of Energy
FAR	Federal Acquisition Regulation
FFATA	Federal Funding and Transparency Act of 2006
FFRDC	Federally Funded Research and Development Center
FOA	Funding Opportunity Announcement
FSRS	FFATA Subaward Reporting System
FY	Fiscal Year
HBCU	Historically Black Colleges and Universities
INL	Idaho National Laboratory
M&O	Management and Operating
M&TE	Measuring and Test Equipment
MSI	Minority-serving Institution
NAICS	North American Industry Classification System
NE	Office of Nuclear Energy
NEID	Nuclear Energy Infrastructure Database
NEPA	National Environmental Policy Act
NEUP	Nuclear Energy University Program
NRDS	Nuclear Research Data System
NS&E	Nuclear Science & Engineering
NSUF	Nuclear Science User Facilities
PDF	Adobe Portable Document Format
PI	Principal Investigator
PICS:NE	NE Program Information Collection System
PSC	Product and Service Codes
QA	Quality Assurance
R&D	Research and Development
RD&D	Research, Development and Demonstration
R&R	Research and Related
SAM	System for Award Management
SF	Standard Form
TCU	Tribal Colleges and Universities
UEI	Unique Entity Identifier
U.S.	United States

CHECKLIST FOR AVOIDING COMMON ERRORS

Item	Issue
Page Limits	Strictly follow page limits and font size throughout application documents, including, but not limited to: <ul style="list-style-type: none"> - Project Summary/Abstract File (use appropriate template) - Project Narrative File (25 pages) - Project Team Curriculum Vitae (2-page max. each CV) - Required Infrastructure Capabilities (5 pages)
Project Summary / Abstract	Name of applicant, Principal Investigator (PI), PI’s institutional affiliation(s), project title, objectives of the project, description of the project, potential impact, and major participants
Budget	Use current negotiated indirect cost and fringe benefit rates
Budget Justification (attached to budget)	Justify all requested costs
Vendor Quotes (Referenced costs (catalog pricing) or other basis for estimate)	Submit vendor quotes for any single item over \$5,000
Current and Pending Support	Ensure complete listing of all activities, including brief abstract of scope of work for all items listed, regardless of source of funding.
Certifications and Assurances	Ensure that signatures are complete for <u>both</u> sections of the certifications and assurances documentation (<u>typically, three (3) signatures are required</u>).
Font Size	Pay particular attention to required font format and sizes, typically, Times New Roman, 11 pt. font.
Forms	Use associated links for any/all forms.

PART I - FUNDING OPPORTUNITY DESCRIPTION

This Funding Opportunity Announcement (FOA) is for University Nuclear Research Infrastructure Revitalization. It is referred to in this document as the “Infrastructure Revitalization FOA.”

A. BACKGROUND AND OBJECTIVES

The Office of Nuclear Energy’s (NE) mission is to advance nuclear energy science and technology to meet 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.

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

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.

The development of nuclear energy-related infrastructure and basic capabilities in the research community is necessary to promote Research and Development (R&D) that supports nuclear science and engineering (NS&E), NE’s mission, and the nation’s nuclear energy challenges. Accordingly, DOE intends to facilitate the education and training of nuclear scientists, engineers, and policymakers through graduate and undergraduate study, two-year programs, and R&D that is relevant to the Department and the U.S. nuclear energy industry in general.

As part of its ongoing infrastructure support activities, NE has supported individual, discrete, and definable items or capabilities. This Infrastructure Revitalization FOA is in addition to the other NE Infrastructure investments and seeks a more holistic approach to improving U.S. university’s R&D capabilities.

Consolidated Appropriations Act, 2023 provides the following direction regarding infrastructure revitalization: “The agreement does not provide any funds for the planning and construction of new university nuclear reactors. Within available funds for NEUP, SBIR/STTR, and TCF, the agreement provides up to \$12,000,000 to revitalize existing university nuclear research infrastructure, especially in support of nuclear cyber-physical protection, new digital technologies in advanced nuclear reactors, and the development and safety assessments of small modular reactors.”

Projects proposed under the Infrastructure Revitalization FOA are intended to:

- revitalize the U.S. capacity for university-led nuclear R&D by establishing and/or improving infrastructure to align with the advanced reactor technologies being deployed by the U.S. nuclear industry;
- support innovative combinations of facilities, equipment, and related capabilities to maximize the value of investments toward R&D;
- emphasize support for rapid, lower-cost approaches that can enable advanced-reactor-relevant R&D, education and workforce development prior to any universities establishing advanced research reactors; and
- involve consortia among diverse types of institutions to maximize participation and realization of benefits by underrepresented communities that have historically faced challenges to such access.

Requests should focus on a goal or capability that significantly adds to the current U.S. capacity to support advanced reactor R&D, education, and workforce development. Applicants must demonstrate the connection among requested pieces of equipment or other project elements toward a key objective or outcome. Applications made of several uncorrelated equipment requests are not of interest. A request should not duplicate existing capabilities.

Activities that involve the planning or construction of new university nuclear reactors will not be considered.

NE reserves the right to respond to potential shifts in priorities during FY 2024 that may be driven by events, policy developments, or Congressional/budget direction. DOE-NE will factor such considerations into decisions related to the timing and scale of award announcements associated with this FOA.

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.

B. FUNDING OPPORTUNITIES

NE is seeking applications from U.S. universities to conduct Infrastructure Revitalization activities in support of this Infrastructure Revitalization FOA.

Although requests for infrastructure support in response to this FOA are not restricted, DOE reserves the right to consider the results of its ongoing evaluation of priorities as part of the award selection process.

C. ELIGIBILITY AND APPLICATION RESTRICTIONS

In accordance with 2 CFR 910.126(b), eligibility for award is restricted to U.S. universities and colleges.

The following costs are not allowed under this FOA:

- The application cannot include the cost of routine operation and maintenance of equipment;
- Upgrades to increase operational profit or support for commercial activities are not allowed.
- Indirect costs are not allowed for the 50% of the budget that must go to equipment and upgrades (e.g., physical infrastructure/equipment).

D. STATEMENT OF OBJECTIVES

The intent of this FOA is to award approximately one (1) grant, for up to four (4) years, to a consortium consisting of universities, national labs, and/or industry partners. The consortia must be university led.

The consortia project shall establish and/or enhance nuclear research capabilities at U.S. universities, especially in support of:

- (1) nuclear cyber-physical protection,
- (2) new digital technologies in advanced nuclear reactors, and
- (3) the development and safety assessments of small modular reactors.

The proposed effort must strengthen and revitalize the academic community's nuclear energy infrastructure, which could include enhancements of existing infrastructure or creation of new capabilities.

In addition, the proposed effort must enhance regional or national impact of the investment and must foster inclusion of underrepresented communities.

Applicants must have the full consent of each collaborator prior to listing them on an application form. Non-university collaborators and personnel, in composite, can have no more than 20% of the total funds provided by the Government.

Note: DOE has initiated a priority effort to develop and maintain a national R&D framework to achieve NE's research missions, requiring an integrated approach involving people, tools, facilities, and knowledge, tied to strategic partnerships. Experimental infrastructure (i.e., tools and facilities) is a critical piece of this framework. However, these capabilities, especially radiological and nuclear facilities, required to handle nuclear material, are expensive to build and maintain. Therefore, thoughtful management of new capability procurement is required, while also providing researchers with an effective mechanism to obtain access to unique nuclear energy research facilities.

Please note the following:

- NE reserves the right to award portions of a request so that available funding can have the highest impact for the nuclear energy community.
- Proposals that support the sharing and use of equipment and instrumentation by multiple campuses of a university or multiple universities are encouraged.

PART II - AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding one or more grants to consortium-leading universities and/or colleges, with the lead organization responsible for managing subawards and/or subcontracts with its consortium partners.

B. ESTIMATED FUNDING

NE currently estimates that it will award approximately **\$6 million** in funds under the Infrastructure Revitalization FOA. Funding for all awards is contingent upon the availability of funds appropriated by Congress for the purpose of this program.

C. MAXIMUM AND MINIMUM AWARD SIZE

The maximum amount of funding available for an individual award under this area is identified as the FOA ceiling, and the minimum amount of funding available for an individual award under this area is identified as the floor. The individual award values are provided below:

<u>Federal Floor</u> (i.e., minimum amount for an individual award made under this announcement)	None.
<u>Federal Ceiling</u> (i.e., maximum amount for an individual award made under this announcement)	\$6,000,000
Anticipated Awards	1

D. EXPECTED NUMBER AND ANTICIPATED SIZE OF AWARDS

NE anticipates making one (1) award, up to \$6,000,000, under this FOA. The number of awards is dependent on the size of the awards. DOE reserves the right to make more or fewer (or even no awards) depending on funding availability and/or the quality of the applications.

E. PERIOD OF PERFORMANCE

DOE anticipates making awards with an estimated project period of four (4) years, beginning August 1, 2024. Additional time, if needed, may be requested, and justified in the application.

F. TYPE OF APPLICATION

DOE will only accept new applications under this announcement.

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

Universities and Colleges: In accordance with 2 CFR 910.126(b), eligibility for award is restricted to U.S. universities and colleges.

Restricting eligibility ensures the Nuclear Energy University Program supports university research, collaborations with industry and national laboratories, and training and educating the next generation nuclear workforce.

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). The goal is to spur economic development and job creation in DACs throughout the United States, 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 advance energy justice through effective teams and/or partnerships with Minority Serving Institutions (MSIs), 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/idades/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 off of 2020 U.S. Department of Education data compiled by Rutgers University's Center for MSIs, which can be found here: <https://www2.ed.gov/about/offices/list/ope/idades/2022eligibilitymatrix.xlsx>. This list is also not an exhaustive list of MSIs but will be used as a starting point for auto-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.

The application must originate from the lead institution. All lead Principal Investigators (PIs) must have an active account in the NEUP.gov website submittal system. Research consortiums may be composed of diverse institutions including academia, national laboratories, non-profit research institutes, industry/utilities, and international partners. Research teams should strive to achieve the synergies that arise when individuals with forefront expertise in different methodologies, technologies, disciplines, and areas of content knowledge approach a problem together, overcoming impasses by considering the issue from fresh angles and discovering novel solutions.

While international partners are encouraged to participate, no U.S. Government funding will be provided to entities incorporated outside of the U.S. or to a foreign government or any entity owned or controlled by a foreign government. Foreign government ownership means direct ownership of the applicant entity, its parent organization (e.g., trust, holding company, corporation, etc.), and any and all other entities in the corporate structure regardless of the applicant entity's place of incorporation and operation. NE will evaluate the benefit and contribution of any such proposed partnerships as part of its evaluation of the relevancy to the NE mission. A collaborator is an individual that makes a defined, material contribution that is critical to the success of the project and/or contributing to joint publications. Any individual appearing in the project summary, technical narrative, benefit of collaboration, coordination and management plan, or budget documents should be listed directly as collaborators on the application form. All collaborators must be added to the application form with complete information. Any individuals that do not meet these criteria should not be listed as collaborators on the application. NE has two designations for collaborators and personnel: 1) key/senior personnel and 2) 'other personnel'. Document requirements will vary depending on whether an individual is designated as 'key/senior personnel' or as a general collaborator. Key/senior personnel should be listed in the first "collaborators" section on the application form. Other collaborators or personnel should be listed on the second "collaborators" section of the application form. Refer to the application requirements to provide needed information for all key/senior personnel. Applicants must have the full consent of each collaborator prior to listing them on an application form. Non-university collaborators and personnel, in composite, can have no more than 20% of the total funds provided by the Government. An employee with a joint appointment between a university and a DOE national laboratory can apply through the institute of higher education (IHE) if the institution pays his or her salary and provides his or her benefits.

What is a Disadvantaged Community (DAC)?

Defined by Executive Order 14008. Communities that are economically disadvantaged and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and health care. A community qualifies as "disadvantaged" if the census tract is above the threshold for one or more environmental or climate indicators and the tract is above the threshold for the socioeconomic indicators.

What is an underrepresented community?

According to the Equity Executive Orders: 13985, 14020, and 14091, an "underrepresented" community refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, such as Black, Latino, Indigenous and Native American, Asian American, Native Hawaiian, and Pacific Islander persons and other persons of color; members of religious minorities; women and girls; LGBTQI+ persons; persons with disabilities; persons who live in rural areas; persons who live in United States Territories; persons otherwise adversely affected by persistent poverty or inequality; and individuals who belong to multiple such communities. Further, according to the National Science Foundation's 2023, report titled, [Diversity and STEM: Women, Minorities, and Persons with Disabilities](https://nces.nsf.gov/pubs/nsf23315/report), (<https://nces.nsf.gov/pubs/nsf23315/report>) the U.S. STEM workforce has gradually diversified between 2011 and 2021, with increased representation from these underrepresented communities. However, Hispanic workers represented 15% of the total STEM workforce in

2021, and Asian and Black workers were 10% and 9%, respectively. American Indians and Alaska Natives together made up less than 1% of the U.S. population and STEM workforce in 2021. DOE seeks to inspire underrepresented American to pursue careers in energy and support their advancement into leadership positions. (<https://www.energy.gov/articles/introducing-minorities-energy-initiative>).

B. COST SHARING

For university participants, cost sharing is not required, but it is encouraged.

C. OTHER ELIGIBILITY REQUIREMENTS

- Must be a multi-institutional consortium project.
- A minimum of 50% of the budget must go to equipment and upgrades (e.g., physical infrastructure/equipment). The remaining portion of the budget may be used for research costs including faculty, students, and staff support.
- Non-university collaborators and personnel, in composite, can have no more than 20% of the total funds provided by the Government.

Note: It is anticipated that consortium funds will be used to support physical infrastructure and related research activities.

PART IV - APPLICATION AND SUBMISSION INFORMATION

Note: The requirements apply to all FOA areas unless specific requirements are identified.

A. ADDRESS TO REQUEST APPLICATION PACKAGE

Electronic applications and instructions are available at the www.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.

B. DOCUMENT FORMAT REQUIREMENTS

All non-budget documentation (use templates where provided) is to be prepared using standard 8.5” × 11” paper with 1-inch margins (top, bottom, left, right), 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. 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. LETTER OF INTENT AND PRE-APPLICATION

C.1 Letter of Intent

Letters of Intent are not required.

C.2 Pre-applications

Pre-applications are not required.

D. CONTENT AND FORM OF APPLICATION

Applicants **must** provide all information requested. Forms and optional templates may be used to

provide the information in accordance with the instructions below. Files that are attached must be in PDF format, unless otherwise specified in this announcement. Optional document templates can be found on the NEUP.gov website by clicking the ‘Documents’ button at the bottom of the front page (https://neup.inl.gov/SitePages/Related_Documents.aspx).

The following table summarizes all the required forms and files for an application.

Required Form/File	Format	File Name	Signature Required
Conflict-of-Interest	Checkbox	Certified by Lead Applicant for all Participants	
Application for Federal Assistance – SF-424 Research and Related (R&R)	Form	FY24 SF424RR [TRACKING ID#].pdf	Yes
R&R Other Project Information	Form	FY24 R&R Other [TRACKING ID#].pdf	
Project Summary/Abstract File	Form	FY24 Summary Abstract [TRACKING ID#].pdf	
Project Narrative File (limit of 25 pages)	PDF	FY24 Project Narrative [TRACKING ID#].pdf	
Project Team Curriculum Vitae (limit of 3 pages per Vitae)	PDF	FY24 CV [PI NAME] [TRACKING ID#].pdf	
Benefit of Collaboration	PDF	FY24 BOC [TRACKING ID#].pdf	
Required Infrastructure Capabilities (limit 5 pages)	PDF	FY24 Capabilities [TRACKING ID#].pdf	
Project Commitment to Energy Equity and Justice40 Initiative	PDF	FY24 EEandJustice40 [TRACKING ID#].pdf	
R&R Lead Budget Form	Excel	FY24 Budget [TRACKING ID#].xls	
Budget Justification File	PDF	FY24 Budget Justification [TRACKING ID#].pdf	
Vendor Quotes (applicable if over \$5K)	PDF	FY24 Vendor Quotes [TRACKING ID#].pdf	
Current and Pending Support	PDF	FY24 Support [TRACKING ID#].pdf	
Potentially Duplicative Funding Notice (if applicable)	PDF	FY24 PDFN [TRACKING ID#].pdf	
Project/Performance Site Location(s)	PDF	FY24 Site Location [TRACKING ID#].pdf	
Disclosure of Lobbying Activities (SFLLL)	Form	FY24 SF-LLL [TRACKING ID #].pdf	Yes

Required Form/File	Format	File Name	Signature Required
Certifications and Assurances	Form	FY24 Cert & Assurances [TRACKING ID#].pdf	Yes
Transparency of Foreign Connections	PDF	FY24 [LEAD UNIVERSITY] TFC [TRACKING ID#].pdf	

D.1 Conflict-of-Interest (COI) Acknowledgement

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 on participating 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.

Save document as: FY24 COI [TRACKING ID #].pdf

D.2 SF-424 Research and Related (R&R) – Application for Federal Assistance

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

Save form as: FY24 SF424RR [TRACKING ID#].pdf

D.3 R&R 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.

Save form as: FY24 R&R Other [TRACKING ID #].pdf

D.4 Project Summary/Abstract File

(Use provided Template on Application Site)

The one (1) page project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects). Do not include any proprietary or sensitive business information in this document, because, if an award is made, the Department may make it available to the public.

Save template as: FY24 Summary Abstract [TRACKING ID#].pdf

D.5 Project Narrative File

Applicant shall provide a written narrative addressing project execution strategy. The project narrative must not exceed twenty-five (25) printed pages, including cover page, table of contents, charts, graphs, maps, photographs, references, and other pictorial presentations while complying with all document format instructions. The document shall include the items specified below:

(1) Cover Page: containing the following information:

- a. Name of organization(s);
- b. Announcement number;
- c. FOA Opportunity Title (e.g., University Nuclear Research Infrastructure Revitalization);
- d. Technical and business points-of-contact for the applicant, denoting the names, titles, addresses, telephone and facsimile numbers, and electronic mail addresses;
- e. Principal Investigator's (PI's) name, telephone number, facsimile number, e-mail address, and organization name/unit; and
- f. Names of team members and partnerships.

(2) Project Goals and Objectives: This section should provide a clear, concise statement of the specific objectives/aims of the proposed project. For this FOA, a "goal" is an outcome the proposed team would like to achieve, while an objective is an action or outcome related to a metric. Including the following in no specific order:

- a. A narrative that describes how the proposed effort will further NS&E R&D and education.
- b. Describe the NS&E program(s). If a partner does not have a current program, describe plans to establish such a program.
- c. Describe comparable capabilities, if any, already at your organization or partner organizations.
- d. Overall goal(s) of the proposed revitalization effort. The proposed goal(s) may

include multiple components or aspects and may be linked to specific measurable objectives. Goals and objectives must encompass the following (in no particular order):

- i. How the request fills multiple institutional and national infrastructure gaps and complements existing infrastructure and personnel capabilities.
 - ii. How the new equipment and partnerships will enable all partners learning and research missions.
 - iii. Utilization of the upgrades and/or equipment by researchers within and external to your organization. It is recommended to include target metrics of utilization by the proposing institution and others in the research community. If there is a preexisting capability, provide a description of how the upgrade or equipment will improve utilization.
 - iv. How the request enhances infrastructure and associated research in the following areas: 1) nuclear cyber-physical protection, 2) new digital technologies in advanced nuclear reactors, and 3) the development and safety assessments of small modular reactors.
- e. Address the Buy America Requirements for Infrastructure Projects. Include a short statement on whether the project will involve the construction, alteration, and/or repair of infrastructure in the United States. The applicant must assume that the Buy America Requirements are applicable to purchase of equipment. See Appendix A for applicable definitions and other information to inform this statement.

(3) Schedule and Description of Tasks: This section should provide a breakdown of individual tasks related to the overall effort. Successful applicants must use this project timetable to report progress. This section should also include a scope of work and execution plan with detail appropriate to the complexity of the project. This will form the basis for the Project Implementation merit review criteria listed in Part V, A.3. Include the following:

- a. An overall timeline and key milestones of the proposed tasks (e.g., Gantt chart, timeline, etc.).
- b. Applicants must demonstrate a clear educational or R&D objective for new or revitalized infrastructure upgrades. Equipment and other infrastructure improvements should tie back to the original educational or R&D objective.

(4) Relevance and Outcomes/Impacts: This section is a justification for the proposed project and should explain the relevance of the effort to the mission of DOE-NE and the expected outcomes and/or impacts. This section should include a clear statement of the importance of the project in terms of the utility of the outcomes and the target community of beneficiaries. List all applicable DOE-NE funded R&D projects in this section. Specifically list any DOE-NE R&D program relevance.

(5) Roles of Participants: Describe the capabilities and qualifications of the PI and application team to accomplish the proposed work. This should include personnel

information for any expertise required to accomplish the proposed project. References should be specific to individuals. The PI should state explicitly whether there is any expertise that must be acquired to complete the project and the plan to acquire the expertise (new hires, consultants, etc.).

- (6) Facilities, Complementary Equipment, and Other Resources: Identify the facilities (e.g., office, laboratory, computer, etc.), equipment (computers, oscilloscopes, etc.), and other resources (machine shops, electronic shops, etc.) to be used at each performance site. Describe utilization of facilities, equipment, and other resources that are directly applicable to the proposed work. Include pertinent capabilities, capacities, relative proximity, and extent of availability to the project.

Page limits include cover page, table of contents, charts, graphs, maps, photographs, tables, references and other pictorial presentations while complying with the document format requirements. Do not include any internet addresses (URLs) that provide information necessary to review the application; information contained in these sites will not be reviewed.

Save file as: FY24 Project Narrative [TRACKING ID#].pdf

D.6 Vitae (Technical Expertise and Qualifications)

(Required Lead PI, key/senior personnel)

Applicant shall name all teaming partners by name and organization, as well as their proposed roles and responsibilities. For collaborators (including senior key person), who will contribute in a substantial, measurable way to the project (including for subrecipients and consultants), the applicant shall provide brief vitae that list the following:

- (1) Contact Information.
- (2) Education and Training: Undergraduate, graduate, and postdoctoral training. Identify institution, major/area, degree, and year.
- (3) Research and Professional Experience: Beginning with the current position, list, in chronological order, professional/academic positions with a brief description. List all current academic, 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.
- (4) Publications: Provide a list of up to 10 publications most closely related to the proposed project. 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.
- (5) Patents, copyrights, and software systems developed: may be provided in addition to or substituted for publications.
- (6) Synergistic Activities: List no more than 5 professional and scholarly activities related to the effort proposed.

Pages outside the specified page limits and font size, including reference, will be redacted and

unavailable for evaluators to review.

Page limit: 3 pages

Save each CV as a separate file named: FY24 CV [PI LAST NAME] [TRACKING ID#].pdf.”

Note: Technical expertise and qualifications are to be provided for all senior/key personnel. All participants making a defined, material contribution that is critical to the success of the project must be listed as collaborators on the online application. Applicants must have the full consent of all collaborators prior to submitting the application.

D.7 Benefit of Collaboration

The applicant shall provide a narrative that includes an explanation of the contribution that will be made by the collaborating organizations and/or facilities to be utilized. Please indicate within this section whether the application has benefit or influence on other ongoing or proposed NE R&D projects (e.g., modeling and simulation in one application and effect validation in a separate application).

This document is required unless the application only has a single principal investigator.

Pages outside the specified page limits and font size, including references, will be redacted and unavailable for evaluators to review.

Page limit: 4 pages

Save file as: FY24 BOC [TRACKING ID#].pdf

D.8 Required Infrastructure 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 applicant’s 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.
- Adequate financial resources (if cost sharing).
- Ability to comply with the required or proposed performance schedule, taking into consideration all existing commercial and governmental business commitments.
- A satisfactory record of performance, integrity, and business ethics.
- Necessary organization, experience, accounting and operational controls, or the ability to obtain them (including, as appropriate, such elements as property control systems, quality assurance measures, and safety programs).

This Infrastructure Revitalization 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. Pages outside the specified page limits and font size, including references, will be redacted and unavailable for evaluators to review.

Pages outside the specified page limits and font size, including references, will be redacted and unavailable for evaluators to review.

Page limit: 5 pages

Save file as: FY24 Capabilities [TRACKING ID#].pdf

D.9 Project Commitment to Energy Equity and Justice40 Initiative (Required)

Applicants are encouraged to describe how their projects or project teams will: (1) contribute to the Justice40 Initiative (as described in Part III Section A of this FOA); and/or (2) advance energy justice through 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 projects support the Justice40 Initiative, including for example:

- Extent to which the applicant identifies the following: specific and measurable benefits for DACs; how the benefits will flow to DACs; and how negative environmental impacts affecting DACs 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 DACs: (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 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 meeting the objective that 40% of the benefits of climate and clean energy investments will flow to DACs;
- The degree to which the proposed project provides funding to DACs 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;
- Whether the entity is located in a DAC. The onus is on the applicant to self-identify whether it is located in a DAC or partners with an entity, located in a DAC;
- The degree to which the proposed project incorporates applicant or team members from DACs; and
- Whether the proposed project may directly or indirectly benefit DACs or has team

member participants from DACs.

Advance Energy Equity. (NOTE: Energy equity centers the concerns of 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 advance energy equity, including for example: the degree to which the proposed project incorporates team member diversity with participants from MSIs, including HBCUs and TCUs; and/or partnerships with Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or Tribal nations.

Save file as: FY24 EEandJustice40 [TRACKING ID#].pdf

D.10 Budget Documents

D.10.1 R&R Lead Budget Form: (TOTAL FED & NON-FED)

Complete the Research and Related Budget (Total Fed & Non-Fed) form in accordance with the following instructions.

A separate budget must be completed for each year of requested support. The form will generate a cumulative budget for the total project period. Complete all the mandatory information on the form. Funds may be requested under any of the categories listed if 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 announcement (see Part IV, Section I.2 of this Infrastructure Revitalization FOA).

NOTE: Successful applicants may be requested to participate in an annual program review meeting and should budget travel accordingly.

NOTE: Do NOT lock the cells when saving this document. Applications containing budget forms with locked cells may not be evaluated further.

Save file as: FY24 Budget [TRACKING ID #].xls

D.10.2 R&R Subaward Budget Form: (TOTAL FED & NON-FED)

(Required for University and Industry Collaborators)

Budgets for subrecipients, other than DOE Federally Funded Research and Development Center (FFRDC) Contractors. Applicant must provide a separate cumulative SF-424 budget for each subrecipient that is expected to perform work estimated to be more than \$250,000 or 50% of the total work effort (whichever is less). Use up to 10 letters of the subrecipient institution's name as the file name.

NOTE: Do **NOT** lock the cells when saving this document. Applications containing budget forms with LOCKED CELLS may not be evaluated further.

Save file as: FY24 Subaward Budget [TRACKING ID #].xls

D.10.3 Budget for DOE/NNSA FFRDC Contractor

(Required for National Laboratory participants)

If using a DOE/NNSA FFRDC contractor, the FFRDC must provide a DOE Field Work Proposal in accordance with the requirements in DOE Order 412.1A, Administrative (Admin) Change 1, Work Authorization System dated 05/21/2014. FWP's 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.).

Save file as: FY24 FWP [TRACKING ID #].pdf

D.10.4 Budget Justification (Required for all University and Industry Participants)

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.

Since a minimum of 50% of the budget must go to equipment and upgrades (e.g., physical infrastructure/equipment), the budget justification must clearly show this breakdown. No indirect costs may be charged against this portion of the award. Vendor costs for development, installation, initial testing, or building modifications that immediately support the installation and operation of the equipment/upgrade may be included in this 50% calculation.

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 added to the budget justification will not be approved upon issuance of the grant.

If cost sharing is voluntarily proposed, provide an explanation of the source, nature, amount, and availability of any proposed cost sharing.

Third Parties Contributing to Cost Sharing Information (if applicable):

A letter from each third party (i.e., a party other than the organization submitting the application) contributing to the cost share, at the time the application is submitted. The letter must state that the third party is committed to providing a specific minimum dollar amount of cost sharing. Submitting the letters with the application provides assurance that the letters of commitment have been signed.

In an appendix to the Budget Justification, the following information for each third party contributing to cost sharing must be identified: (1) the name of the organization; (2) the proposed dollar amount to be provided; (3) the amount as a percentage of the total project cost; and (4) the proposed cost sharing - cash, services, or property. Successful applicants must provide the signed letters of commitment outlined in Part IV, Section F, Submission from Successful Applicants.

Save file as: FY24 Budget Justification [TRACKING ID #].pdf

D.10.5 Vendor Quotes

Submit vendor quotes, referenced costs (catalog pricing), or other basis for estimate for any single item over \$5,000. This is required even though the proposer may intend to submit the contract for open bids following the award.

Save vendor quotes as one single file and upload in the Budget Justification section.

Save file as: FY24 Vendor Quotes [TRACKING ID #].pdf.

D.11 Additional Attachments

D.11.1 Current & Pending Support and Duplicative Funding

Note: Current and Pending Support and Potentially Duplicative Funding Notice are to be submitted as two separate documents through the submission portal at www.neup.gov.

Current and Pending Support

(Required for Lead PI and Senior/Key Personnel)

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 principal investigator 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 approved common disclosure format available at https://www.nsf.gov/bfa/dias/policy/researchprotection/commonform_cps.pdf.

If the common disclosure format is used, the individual must still include a signature, date, and a certification statement using the language included below.

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.

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 research, development and demonstration (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 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 an RD&D project proposed to be carried out with DOE award.

Save file as: FY24 Current and Pending Support [TRACKING ID#].pdf

Potentially Duplicative Funding Notice

(If applicable)

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.

Save file as: FY24 PDFN [TRACKING ID#].pdf

D.11.2 Coordination and Management Plan

Multiple PIs (multiple individuals i.e., Lead PI, Co-PI, etc.): The applicant, whether a single organization or team/partnership/consortium, must state whether the project will include multiple PIs. This decision is solely the responsibility of the applicant. If multiple PIs will be designated, the application must identify the Contact PI/Project Coordinator and provide a “Coordination and Management Plan” that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

Process for making decisions on scientific/technical direction;

- Publications;
- Intellectual property issues;

- Communication plans;
- Procedures for resolving conflicts; and
- PIs' roles and administrative, technical, and scientific responsibilities for the project.

Save file as: FY24 CMP [TRACKING ID#].pdf

D.11.3 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, if all FFRDC/non-FFRDC management has been notified of all submissions, and all participants are identified, may be submitted as a blanket permission.

NOTE: Letter of Authorization is not required for NSUF Technical Leads unless the Technical Lead is named as senior/key personnel requesting R&D funding support under this Infrastructure Revitalization FOA.

Save file as: FY24 CO Authorization [TRACKING ID #].pdf

D.11.4 Project/Performance Site Location(s)

Indicate lead and collaborating site(s) where R&D work will be performed. Note the Project/Performance Site Congressional District is entered in the format of the 2-digit state code, followed by the 3-digit Congressional district code (e.g., AA-001).

Save form as: FY24 Site Location [TRACKING ID#].pdf

D.11.5 Disclosure of Lobbying Activities (Required for ALL Applicants)

Applicants must complete and attached the SF-LLL, “Disclosure Form to Report Lobbying,” which is available at the application site document library. Applicants must identify any funds, other than federally appropriated funds, that 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 of employee of Congress, or an employee of a Member of Congress in connection with the grant.

Save file as: FY24 SF-LLL [TRACKING ID#].pdf

D.11.6 Certifications and Assurances (Required for all Applicants)

Applicants must complete and attached 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>.

Save form as: FY24 Cert & Assurances [TRACKING ID#].pdf

D.11.7 Transparency of Foreign Connections

Applicants must provide the following as it relates to the proposed recipient and subrecipients. Include a separate disclosure for the applicant and each proposed subrecipient. U.S. National Laboratories, domestic government entities, and institutions of higher education are only required to respond to items 1, 2 and 9, and if applying as to serve as the prime recipient, must provide complete responses for project team members that are not U.S. National Laboratories, domestic government entities, or institutions of higher education.

- (1) Entity name, website address, and mailing address;
- (2) The identity of all owners, principal investigators, project managers, and senior/key personnel who are a party to any Foreign Government-Sponsored Talent Recruitment Program of a foreign country of risk (i.e., China, Iran, North Korea, and Russia);
- (3) The existence of any joint venture or subsidiary that is based in, funded by, or has a foreign affiliation with any foreign country of risk;
- (4) Any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an enterprise owned by a foreign state or any foreign entity;
- (5) Percentage, if any, that the proposed recipient or subrecipient has foreign ownership or control;
- (6) Percentage, if any, that the proposed recipient or subrecipient is wholly or partially owned by an entity in a foreign country of risk;
- (7) Percentage, if any, of venture capital or institutional investment by an entity that has a general partner or individual holding a leadership role in such entity who has a foreign affiliation with any foreign country of risk;
- (8) Any technology licensing or intellectual property sales to a foreign country of risk, during the 5-year period preceding submission of the proposal;
- (9) Any foreign business entity, offshore entity, or entity outside the United States related to the proposed recipient or subrecipient;
- (10) Complete list of all directors (and board observers), including their full name, citizenship and shareholder affiliation, date of appointment, duration of term, as well as a description of observer rights as applicable;
- (11) Complete capitalization table for your entity, including all equity interests (including LLC and partnership interests, as well as derivative securities). Include both the number of shares issued to each equity holder, as well as the percentage of that series and all

equity on a fully diluted basis. Identify the principal place of incorporation (or organization) for each equity holder. If the equity holder is a natural person, identify the citizenship(s). If the recipient or subrecipient is a publicly traded company, provide the above information for shareholders with an interest greater than 5%;

(12) A summary table identifying all rounds of financing, the purchase dates, the investors for each round, and all the associated governance and information rights obtained by investors during each round of financing; and

(13) An organization chart to illustrate the relationship between your entity and the immediate parent, ultimate parent, and any intermediate parent, as well as any subsidiary or affiliates. Identify where each entity is incorporated.

DOE reserves the right to request additional or clarifying information based on the information submitted.

Note: Save all information in a single PDF file.

Save file as: FY24 [LEAD UNIVERSITY] TFC [TRACKING ID#].pdf

E. REQUIRED DOCUMENTS AFTER SELECTION FOR NEGOTIATIONS

E.1 Environmental Checklist

An environmental checklist will be required at the time of award negotiations. If selected for award negotiations, please fill out the [Environmental Checklist](#).

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.

E.2 Data Management Plan (DMP)

A Data Management Plan (DMP) will be required by November 1, 2024, that:

1. Should describe 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). 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. DMPs may utilize the Nuclear Research Data System (NRDS) for storage of digital

research data. NRDS is a newly developed NSUF High Performance Computing data repository solution that can provide secure lifecycle storage of NSUF and NEUP project data. Access to NRDS would be provided to the PI after award notification and before data is generated. Further details on the NRDS can be found at nsuf.inl.gov.

2. Should provide 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, utilization of the NRDS, or through other means. The published article should indicate how these data can be accessed.
3. Should consult and reference 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.

F. 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:

- 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; and
- Data Management Plan.

G. SUBMISSION DATES AND TIMES

G.1 Letter of Intent Due Date

Letters of Intent are not required.

G.2 Pre-application Due Date

Pre-applications are not required.

G.3 Application Due Date

Applications must be received by February 14, 2024, no later than 5:00 PM Eastern Time. Applicants are encouraged to transmit applications well before the deadline. APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

H. INTERGOVERNMENTAL REVIEW

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

I. 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.1 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.

NOTE: For for-profit organizations, 2 CFR 910.352 incorporates the cost principles located at the Federal Acquisition Regulation (FAR) part 31.

I.2 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.

I.3 Prohibition related to Foreign Government-Sponsored Talent Recruitment Programs

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.

Definitions

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.

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.

I.4 Foreign Collaboration Considerations

- a. 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.
- b. 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.
- c. 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.

I.5 Buy America Requirements for Infrastructure Projects

Federally assisted projects which involve infrastructure work, undertaken by applicable recipient types, require that:

- all iron, steel, and manufactured products used in the infrastructure work are produced in the United States; and
- all construction materials used in the infrastructure work are manufactured in the United States.

Whether a given project must apply this requirement is project-specific and dependent on several factors, such as the recipient's entity type, whether the work involves "infrastructure," as that term is defined in Section 70914 of the Bipartisan Infrastructure Law, and whether the infrastructure in question is publicly owned or serves a public function.

Applicants are strongly encouraged to consult Appendix A of this FOA to determine whether their project may have to apply this requirement, both to make an early determination as to the need of a waiver, as well as to determine what impact, if any, this requirement may have on the proposed project's budget.

J. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

J.1 Where to Submit

Applications must be submitted 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 your application, call Nick Case at 208-681-3848, or send an email to NEUP@inl.gov.

J.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. DOE reserves the right (with concurrence of the applicant) to use the submitted application(s) to make additional awards for up to a one year, even after DOE's initial selection announcement has occurred.

PART V - APPLICATION REVIEW INFORMATION

Note: The following requirements apply to all FOA areas unless specific requirements are identified.

A. CRITERIA

A.1 Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that:

- a. Proposed work is relevant to the DOE-NE mission;
- b. Applicant is eligible for an award; and
- c. Information and documents, required by the FOA, have been submitted.

Applications that fail to pass the initial review will not be forwarded for merit review and will be eliminated from further consideration.

A.2 Relevancy Criteria

Following the initial review, programmatic experts will assess relevance to the NE mission. All applications that meet the objectives of this FOA will move forward to the technical review phase.

A.3 Technical Review Merit Criteria

Criterion 1 – Merit of the Project Relative to Revitalizing Nuclear Research

Infrastructure: DOE will evaluate the merit of the application with respect to revitalizing nuclear science and engineering infrastructure. This may include evaluating the extent to which the project goals and objectives will advance the state of scientific knowledge and understanding by addressing key infrastructure challenges that will enable promising developments and enhance efforts in identified high priority areas. Evaluations will consider how well the proposed project presents a balanced and comprehensive program that revitalizes scientific infrastructure in support of experimental, theoretical, and computational efforts in the nuclear science and engineering community. In addition, evaluations will consider how well access and opportunities are equitably provided in ways that include underrepresented and disadvantaged communities.

Criterion 2 – Appropriateness of the Proposed Method or Approach: DOE will evaluate the appropriateness of the proposed method or approach, including risk posed by the approach, as well as the extent to which the strategy and plan for the development and operation of the proposal identifies an acceptable approach involving senior/key personnel, the means for achieving integration on the project, and plans for leadership and guidance for the scientific and technical direction. DOE shall consider whether the applicant presents a comprehensive management plan for a world-class program that encourages research, including high-risk, high-reward research, as well as synergisms among investigators. The organization structure should delineate the roles and responsibilities of senior/key personnel and describe the means of providing external oversight and guidance for scientific and technical direction and approval of the research program. Additionally, DOE will also consider the following:

- The applicant's plans (if any) for education, outreach, and training are appropriate and, if needed, described as part of the scope.

- Appropriateness and reasonableness of applicant's plans (if any) for external collaborations and partnerships.
- The roles and intellectual contributions of the lead PI, other investigator(s), and each senior/key person.
- Maximizing the use of other available facilities and existing equipment.
- Relation to existing and planned research programs at the host or collaborator institution.

Criterion 3 – Applicant Team Capabilities, Risks, and Experience: DOE will evaluate the extent to which the applicant team provides objective evidence that it has or can obtain the professional resources and abilities to successfully complete the project in a technically defensible manner. Current activities, relevance, integration of students, and depth of the organization's experience and capabilities, together with that of the PI, will be evaluated as it relates to the likely successful completion of the project. DOE will evaluate risk posed by the applicant team. In evaluating this criterion, DOE will consider the extent to which the application demonstrates the following:

- Maximizing the use of other available facilities and existing equipment.
- The proposed access to existing research space, instrumentation, and facilities at the host institutions and its partners are likely to meet the needs of the project.
- There is adequate access to experimental and computational capabilities as needed to ensure successful completion of the proposed research.
- The lead institution and the senior/key personnel for the project have proven records of success in project, program, and personnel management for projects of comparable magnitude.
- The plan for recruiting any additional scientific and technical personnel including new senior staff, students, and post-docs is reasonable and appropriate.
- The project leadership has the capability to communicate effectively with scientists of all required disciplines.
- The lead PI and senior/key personnel will be adequately involved in the proposal, particularly taking into account their potential involvement in other major projects.

A.4 Diverse Team Review

DOE may allocate up to 3 bonus points (constituting up to 3% of a maximum achievable technical score based upon the merit ratings given) to be added to the average, overall technical score during the merit review process based on the degree to which an application is led by or effectively partner with MSIs, including HBCUs and TCUs. (For a directory of MSIs please visit: <https://www2.ed.gov/about/offices/list/ope/idues/eligibility.html#tips> and [College Navigator - Search Results \(ed.gov\)](#))

NOTE: Diverse teams and partnerships are not required for projects to be evaluated as unquestionably relevant; however, diverse teams and partnerships will increase the average overall score by up to 3 points, based on the project meeting one of the following criteria: (1) the project has a substantive contribution by MSIs, including HBCUs and TCUs, as lead or

collaborator; (2) the project has a demonstrable contribution by MSIs, including HBCUs and TCUs, as lead or collaborator; or (3) the project has some relevant partnership with MSIs, including HBCUs and TCUs, as lead or collaborator.

Weighting of Evaluation Scores

Criterion	
Technical Application – Peer Review	Percentage of Peer Review Rating
Criterion 1: Merit of the Project Relative to Revitalizing Nuclear Research Infrastructure	35%
Criterion 2: Appropriateness of the Proposed Method or Approach	35%
Criterion 3: Applicant Team Capabilities, Risks, and Experience	30%
Peer Review Score	Sum of ratings x weights
Relevance to the NE mission	Yes/No
Diverse Team Review	Up to 3 points (equivalent of up to 3% of the maximum overall technical rating based upon the technical review criteria ratings)

A.5 Other Selection Factors

Program Policy Factors. The selection official may consider the following program policy factors in the selection process under all FOA areas, as appropriate (not listed in order of importance):

- Degree to which proposed project optimizes/maximizes use of available NE funding to achieve NE mission goals and objectives. This includes how those projects support nuclear energy related research and education.
- Application selection may optimize an appropriate mix of projects to achieve NE research goals and objectives.
- Cost/Budget considerations, including availability of funding.
- Extent that the applicant has awards in progress, or not completed, from NE, from a previous year’s FOA, or has existing no-cost time extensions.
- Demonstrated ability of the applicant to successfully complete projects (including relevant prior projects) and to do so within budget and within the specified timeframe of the award.
- Applicability across multiple reactor technologies, including future design types.
- If cost share is proposed.
- Projects that contribute to energy equity. Any applicants’ submission of a Project Commitment to Energy Equity and Justice⁴⁰ Initiative (FY 2024 University

Infrastructure Revitalization FOA, PART III, A), will be included in the SO briefing for consideration. Applicants are encouraged to describe how their projects or project teams will contribute to energy equity. Applicants may include a section on how the projects advance energy equity, including for example: the degree to which the proposed project incorporates team member diversity with participants from MSIs, including HBCUs and TCUs; and/or partnerships with Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or Tribal nations.

- Projects that support the Justice 40 Initiative. Any applicants' submission of a Project Commitment to Energy Equity and Justice40 Initiative (FY 2024 University Infrastructure Revitalization FOA, PART III, A), will be included in the SO briefing for consideration. Applicants were provided examples in the FOA of how their projects could support the Justice40 Initiative, including:
 - Extent to which the applicant identifies the following: specific and measurable benefits for disadvantaged communities (DACs); how the benefits will flow to DACs; and how negative environmental impacts affecting DACs 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 DACs: (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 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 meeting the objective that 40% of the benefits of climate and clean energy investments will flow to DACs;
 - The degree to which the proposed project provides funding to DACs 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;
 - Whether the entity is located in a DAC. The onus is on the applicant to self-identify whether it is located in a DAC or partners with an entity, located in a DAC;
 - The degree to which the proposed project incorporates applicant or team members from DACs; and
 - Whether the proposed project may directly or indirectly benefit DACs or has team member participants from DACs.

The Selection Official may consider any of the above factors independently 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 policy factors and available funding. Therefore, the Selection Official may use program policy factors to assist in determining which applications shall receive DOE funding support.

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.

B. SUMMARY OF THE REVIEW AND SELECTION PROCESS

B.1 Applications

Multiple technical experts independently evaluate the applications in accordance with the review criteria as described above. Also, DOE will complete a Relevancy Criteria Review in accordance with the criteria described above. Following individual review, reviewers meet as a panel for final recommendation to DOE. DOE will consider the overall evaluation results and program policy factors, and risk reviews to ultimately recommend applications for approval by the Selection Official.

Due to the expected complexity of these projects, DOE may require clarification on the contents of application(s) and an opportunity to ask questions regarding the proposed project. As part of the evaluation and selection process for any review cycle, DOE may elect to do pre-selection clarifications. These pre-selection clarifications, if done, will be used for the purposes of clarifying the applications, not supplementing the applications. Use of such pre-selection clarifications neither obligates DOE to make an award nor to use a clarification process for successive review cycles.

B.2 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.3 Government Discussion with Applicant (December 2014)

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (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 amended by 2 CFR part 910; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION

DOE anticipates notifying applicants selected for award negotiations no later than May 31, 2024. DOE reserves the right to make additional award selections using applications submitted in response to this FOA. Award(s) for this project are subject to the availability of Federal funding.

PART VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES

A.1 Notice of Selection

DOE will notify applicants selected for award negotiations. This notice of selection is not an authorization to begin performance, nor is it a commitment by DOE to issue an award. (See Part IV Section I.3, with respect to the allowability of pre-award costs.) Organizations whose applications have not been selected will be advised as promptly as possible.

An assistance agreement, signed by the DOE Contracting Officer, is the authorizing award document for any grants awarded as a result of this FOA. A post-selection/pre-award process will occur prior to issuing the actual award. This process includes such activities as a responsibility review/review of risk posed by the selected applicant, a technical and budget review of the selected applicant's proposed budget, etc. Once approved, DOE-NE will provide the actual award notice to the recipient by electronic means.

A.2 Nondisclosure and Confidentiality Agreements Representations

In submitting an application in response to this Infrastructure Revitalization FOA, the Applicant represents that:

- 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.
- 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 statute 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 shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

Notwithstanding 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.3 Notice of Award

An Assistance Agreement issued and signed 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.
- (8) Government-wide Research Terms and Conditions. These can also be found at: <https://www.nsf.gov/awards/managing/rtc.jsp>.

If an award is made to a DOE national laboratory, it will be made against their existing prime M&O contract with DOE through the work authorization system as outlined in DOE O 412.1A, Admin Change 1. DOE national laboratories remain bound by the terms and conditions of their contract with DOE. DOE O 481.1E., Strategic Partnership Projects, is not applicable.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

B.1 Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR part 200, as amended by 2 CFR part 910 (see <https://ecfr.gov/>). Grants and cooperative agreements 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 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 CINR FOA. Primes and subawardees at all tiers must obtain Unique Entity ID numbers and provide it to the prime awardee before the subaward can be issued. The prime will provide this valid Unique Entity ID in its application. DOE may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity ID 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/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/operational-management/financial-assistance/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 record 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 available for submission for DOE review material pedigree records.

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 available personnel training records for submission for DOE-NE 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 topic area.

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 the following: (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 documents adequately and can be validated.

Peer Review

Peer reviews shall be performed in accordance with peer review best practices as described in Part V of this CINR FOA. 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 Interim Conflict of Interest 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.

B.5 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.6 Corporate Felony Conviction and Federal Tax Liability Representations

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

- 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; and

- 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 United States (but not foreign corporations); and
- It includes both for-profit and non-profit organizations.

B.7 Statement of Federal Stewardship

DOE/NNSA will exercise normal Federal stewardship in overseeing the project activities performed under this award. Stewardship activities include, but are not limited to, conducting site visits; reviewing performance and financial reports; providing technical assistance and/or temporary intervention in unusual circumstances to correct deficiencies which develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the award objectives have been accomplished.

The recipient's responsibilities are listed in Part V, Section B.7 below:

Recipient's Responsibilities. The recipient is responsible for:

- Complying with all award requirements, including performing the activities supported by this award, including providing the required personnel, facilities, equipment, supplies and services.
- 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:
 - **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.

- **NE Program Accrual Information:** DOE policy requires the monthly tracking of uncosted obligations on financial assistance awards in the DOE accounting system to assist DOE in accomplishing more accurate project management and to more 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 limitation 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.

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/financial-assistance-forms> under Award Forms.

NOTE: A new award may be delayed due to delinquent reporting, including delinquent final reports for past awards.

NOTE: The DOE F 4600.2 identifies in box 4.E "Other Reporting", a marked checkbox titled "Other (see special instructions)", which requires submission of the following:

- **Work Package Template** (one time submission) – Completed and submitted by the PI to assist DOE with populating general award information in the PICS:NE system. The template is due no later than 8/31/2024 for awardees in the above listed areas. The Work Package should contain milestones that are appropriate, meaningful and measurable, over the life of the project.
- **Quad Chart** (semi-annual submission) – The chart is completed and submitted by the PI to provide NE program managers and technical leads with a quick "snap-shot" look at R&D progress.

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Interested parties are encouraged to ask questions as early in the application process as possible. Questions and comments concerning this Infrastructure Revitalization FOA shall be submitted no later than five (5) business days prior to the application due date. Questions submitted after that date may not allow the Government sufficient time to respond.

Questions regarding the content of the announcement must be submitted to NEUP@inl.gov. Questions or concerns may also be directed to the Agency Contact listed in Part VII, Section B of this Infrastructure Revitalization FOA. PIs are not allowed to contact Federal POCs or other POCs who may have an advisory role to NE.

Answers to submitted questions containing information about the FOA and technical questions, or the FOA process that would be necessary for the preparation of applications will be posted to www.NEUP.gov as soon as practical. Information provided to a potential applicant in response to its request will not be disclosed if doing so would reveal the potential applicant's confidential business strategy and/or is otherwise protected. DOE will try to respond to a question within three (3) business days unless a similar question and answer have already been posted on the website.

B. AGENCY CONTACT

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

C. INFORMATIONAL WEBINAR

DOE-NE holds a webinar each year to discuss changes to its FOAs and work scope areas for upcoming opportunities. Applicants can watch the live webinar and submit questions to be answered in real time. All webinar presentations are recorded and posted on www.NEUP.gov for review by all applicants.

Webinar presentations from past years can also be found in the "Archive" section of the www.NEUP.gov website.

PART VIII - OTHER INFORMATION

A. AMENDMENTS

Notices of any amendments to this announcement will be posted on www.FedConnect.net and www.Grants.gov, and, as a courtesy, will also be posted on www.NEUP.gov. It is recommended that applicants check the www.NEUP.gov site frequently to ensure they receive 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 and 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 not 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 independent reviews, as well as routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest 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. Domestic small businesses and domestic nonprofit organizations will receive the patent rights clause at 37 CFR 401.14, i.e., the implementation of the Bayh-Dole Act. This clause permits domestic small business and domestic non-profit organizations to retain title to subject inventions.

Class Patent Waiver. For applicant's that are not domestic small businesses or nonprofit organizations, the Office Nuclear Energy (NE) Class Patent Waiver W(C) 2020-002 may be applicable to an award made under this announcement. The class patent waiver will provide applicants, not subject to the Bayh-Dole Act, the option to retain title to their own inventions, subject to the same government retained rights identified in the Act above. To receive the class waiver, an applicant, must agree to provide statutory minimum cost share required under the award and agree to substantially manufacture technology created under the award in the U.S., or provide other economic benefits to the U.S. in accordance with the U.S. Competitiveness provision set forth in the above-referenced class patent waiver.

Rights in Technical Data. Normally, the government has 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 an agreement to satisfy DOE's own needs or to ensure the commercialization of technology developed under a DOE agreement.

Special Protected Data Statutes. This program is covered by a special protected data statute. These special protected data statutes apply to only those applicants who cost share. The provisions of the statute provide for the protection from public disclosure, for a period of up to five (5) years from the development of the information, of data that would be a trade secret, or commercial or financial information that is privileged or confidential, if the information had been obtained from a non-Federal party. Generally, the provision entitled, Rights in Data - Programs Covered Under Special Protected Data Statutes (Item 4 under 2 CFR 910, Appendix A to Subpart D), would apply to an award made under this announcement. This provision will identify data or categories of data first produced in the performance of the award that will be made available to the public, notwithstanding the statutory authority to withhold data from public dissemination, and will also identify data that will be recognized by the parties as protected data.

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.S. Manufacturing. On June 07, 2021, DOE approved a DETERMINATION OF EXCEPTIONAL CIRCUMSTANCES (DEC) UNDER THE BAYH-DOLE ACT TO FURTHER PROMOTE DOMESTIC MANUFACTURE OF DOE SCIENCE AND ENERGY TECHNOLOGIES. In accordance with this DEC, all awards, including sub-awards, under this FOA shall include the U.S. Competitiveness Provision in accordance with Intellectual Property Provisions referenced at Part VI, Section B.3. The Provision requires that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the recipient can show to the satisfaction of DOE that it is not commercially feasible. A copy of the DEC can be found at <https://www.energy.gov/gc/determination-exceptional-circumstances-decs>. Pursuant to 37 CFR § 401.4, any nonprofit organization or small business firm as defined by 35 U.S.C. 201 affected by any DEC has the right to appeal it by providing written notice to DOE within 30 working days from the time it receives a copy of the determination.

G. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES

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 which encourage or support political activities, such as the collection and dissemination of information related to potential, planned, or pending legislation.

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 written approval from the Contracting Officer. No-cost time extensions should be requested as soon as the need is identified, and normally, no later than 3 months before the original project end date.

One no-cost time extension request may be granted for up to 12 months, pending review and approval. No-cost time extension information and form can be found at: <https://neup.inl.gov/SitePages/Research%20and%20Development.aspx>.

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 200.308). The request must include a detailed budget justification, and an updated budget in the same format that was used in the original application. Any request for the purchase of equipment exceeding \$5,000 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 United States government of a conference held by any executive branch department, agency, board, commission, or office for which the cost to the United States 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.

K. EXPORT CONTROL

The United States government regulates the transfer of information, commodities, technology, and software considered to be strategically important to the United States 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 United States 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.

L. 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.

APPENDIX A – REQUIRED USE OF AMERICAN IRON, STEEL, MANUFACTURED PRODUCTS, AND CONSTRUCTION MATERIALS BUY AMERICA REQUIREMENTS FOR INFRASTRUCTURE PROJECTS

A. DEFINITIONS

For purposes of the Buy America requirements, the following definitions apply:

Construction materials includes an article, material, or supply—other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives¹—that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

Infrastructure includes, at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure includes facilities that generate, transport, and distribute energy.

In addition to the above, the infrastructure in question must be publicly-owned or must serve a public function; privately owned infrastructure that is solely utilized for private use is not considered “infrastructure” for purposes of Buy America applicability. The Agency, not the applicant, will have the final say as to whether a given project includes infrastructure, as defined herein. Accordingly, in cases where the “public” nature of the infrastructure is unclear, DOE strongly recommends that applicants complete their full application with the assumption that Buy America requirements will apply to the proposed project.

Project means the construction, alteration, maintenance, or repair of infrastructure in the United States.

Buy America Requirements for Infrastructure Projects (“Buy America” requirements) In accordance with section 70914 of the BIL, none of the project funds (includes federal share and recipient cost share) may be used for a project for infrastructure unless:

- (1) all iron and steel used in the project are produced in the United States--this means all

¹ BIL, § 70917(c)(1)

manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;

- (2) all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and
- (3) all construction materials² are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. The Buy America requirements only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America requirements apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

The Buy America requirements only apply to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does the Buy America requirements apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

These requirements must flow down to all sub-awards, all contracts, subcontracts and purchase orders for work performed under the proposed project.

For additional information related to the application and implementation of these Buy America requirements, please see OMB Memorandum M-22-11, issued April 18, 2022:

<https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf>

B. DOE SUBMISSION REQUIREMENTS FOR FULL APPLICATION

Within the first two pages of the workplan, applicants must provide a short statement on whether the project will involve the construction, alteration, and/or repair of infrastructure in the United States. The ultimate determination about whether a project includes infrastructure remains with DOE, but the applicant’s statement will assist project planning and integration of domestic preference requirements, which may impact the project’s proposed budget.

² Excludes cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.

C. WAIVERS

In limited circumstances, DOE may waive the application of the Buy America requirements where DOE determines that:

- (1) applying the Buy America requirements would be inconsistent with the public interest;
- (2) the types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or
- (3) the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent.

If an applicant is seeking a waiver of the Buy America requirements, it must include a written waiver request with the Full Application. A waiver request must include:

- A detailed justification for the use of “non-domestic” iron, steel, manufactured products, or construction materials to include an explanation as to how the non-domestic item(s) is essential to the project.
- A certification that the applicant or recipient made a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, and nonproprietary communications with potential suppliers.
- Applicant /Recipient name and Unique Entity Identifier (UEI).
- Total estimated project cost, DOE and cost-share amounts.
- Project description and location (to the extent known).
- List and description of iron or steel item(s), manufactured goods, and construction material(s) the applicant or recipient seeks to waive from Domestic Content Procurement Preference requirement, including name, cost, country(ies) of origin (if known), and relevant product and service codes (PSC) and North American Industry Classification System (NAICS) code for each.
- Waiver justification including due diligence performed (e.g., market research, industry outreach) by the applicant or recipient.
- Anticipated impact if no waiver is issued.

DOE may require additional information before considering the waiver request.

Waiver requests are subject to public comment periods of no less than 15 days and must be reviewed by the Made in America Office. There may be instances where an award qualifies, in whole or in part, for an existing waiver described at [[link to awarding agency web site with information on currently applicable general applicability waivers](#)].

The applicant does not have the right to appeal DOE’s decision concerning a waiver request.