Financial Assistance
Notice of Funding Opportunity
Part 2

U.S. DEPARTMENT *of* ENERGY

This is Part 2 of the Notice of Funding Opportunity (NOFO). The NOFO Part 2 is intended as a companion document to the NOFO Part 1. The NOFO Part 1 describes the specific DOE programmatic goals and evaluation criteria, eligibility, and other components that are specific to each funding opportunity.

Part 2 includes fixed DOE requirements that generally do not change from NOFO to NOFO. This document includes standard information for the application phase and describes expectations for award negotiations and post-award requirements for selected applications. Applicants should review both the NOFO Part 1 and the NOFO Part 2 prior to applying.

Mod. No.	Date	Description of Modification
001	01/13/26	Corrected grammar, clarify topic areas and removed a reference to a table not in the document.

Table of Contents

I. Get Registered

There are several required one-time actions applicants must take before applying to this NOFO. Some of these actions may take several weeks, so it is vital applicants build in enough time to complete them. Failure to complete these actions could interfere with application or negotiation deadlines or the ability to receive an award if selected. If you are already registered, make sure your registration is active and up to date. All registrations are free.

A. SAM.gov Registration

You must have an active account with SAM.gov, the System for Award Management (SAM). This includes having a Unique Entity Identifier (UEI).

- **What is it?** SAM is a federal procurement database. All entities that want to do business with the federal government MUST be registered in SAM.
- Existing SAM registrations must be updated annually.
- **Duration** to complete: can take several weeks.
- **Registration Link:** https://sam.gov/content/home
    - **Note:** Subrecipients are not required to obtain an active SAM registration but must obtain a Unique Entity Identifier.
- **HELP:** https://sam.gov/content/help Applicants must allow several weeks for the SAM process to complete. All registrations rely on completion of the SAM registration. (START Early)

B. Unique Entity Identifier (UEI)

- **What is it?** UEI is a non-proprietary identifier that has replaced the Federal Government use of Data Universal Numbering System (DUNS) number effective April 4, 2022.
- Applicants must obtain an UEI from the SAM to uniquely identify the entity. The UEI is available in the SAM entity registration record.
    - **Note**: Subawardees/subrecipients at all tiers must also obtain an UEI from the SAM and provide the UEI to the recipient before the subaward can be issued.
- **Duration** to complete**:** can take several weeks.
- **Registration Link**: https://sam.gov/content/entity-registration
- **HELP:** https://www.fsd.gov/gsafsd_sp

C. Grants.gov Registration

You must have an active Grants.gov registration to receive automatic updates when modifications to this NOFO are posted. Doing so requires a Login.gov registration as well.

- **What is it?** Website used to enable federal grant-making agencies to notify potential applicants of funding opportunities. Please note that letters of intent, concept papers, and applications will not be accepted through Grants.gov (see NEUP.gov information below).
- Step-by step instructions for applicants at How to Apply for Grants website https://grantsgovprod.wordpress.com/2021/04/28/how-to-apply-for-a-federal-funding-opportunity-on-grants-gov/
- **Duration** to complete: can take several days.
- **Registration Link:** https://grants.gov

- **HELP:** https://apply07.grants.gov/help/html/help/index.htm#t=GetStarted%2FGetStarted.htm

D. NEUP.gov

Register and create an account at www.NEUP.gov. Electronic applications and instructions are available at the NEUP.gov website. To access these materials: (1) go to www.NEUP.gov; (2) select "Sign In" from the top right-hand corner of the screen; (3) enter your user credentials; (4) select "Applications" from the menu; and (5) click on "Create New Application" for the type of application you are creating.

If you have any questions about NEUP site registration, application processes, eligibility, or application document requirements contact the Nuclear Energy External Innovation Integration Office (IO) at 208-526-9854 or at neup@inl.gov.

DISCLAIMER:
Applicants are discouraged from submitting information considered proprietary unless it is deemed essential for proper evaluation of the application. If the application contains information that the applicant organization considers to be trade secrets, information that is commercial or financial, or information that is privileged or confidential, the pages containing that information should be identified as specified in the application instructions. When such information is included in the application, it is furnished to the federal government in confidence, with the understanding that the information will be used or disclosed only for evaluation of the application.

The information contained in the application will be protected by DOE from unauthorized disclosure, consistent with the need for merit review of applications of financial assistance awards to assure the integrity of the competitive process and the accuracy and completeness of the information. If a federal financial assistance award is made as a result of or in connection with an application, the federal government has the right to use or disclose the information to the extent authorized by law. This restriction does not limit the federal government's right to use the information if it is obtained without restriction from another source.

II. Eligibility

Please refer to the NOFO Part 1, *Eligibility* for the eligibility criteria specific to your application. This section includes additional information to help applicants understand the standard eligibility requirements across all DOE NOFOs.

A. Cost Sharing

This section contains additional information to help applicants understand federal cost sharing requirements. Please refer to the NOFO Part 1, *Eligibility—Cost Sharing* for the cost sharing criteria specific to your application.

1. Legal Responsibility

Although the cost share requirement applies to the entire project, including work performed by members of the project team other than the recipient, the recipient is legally responsible for paying the entire cost share. The recipient's cost share obligation is expressed in the Assistance Agreement as a static amount in U.S. dollars (cost share amount) and as a percentage of the Total Project Cost (cost share percentage). If the funding agreement is terminated prior to the end of the project period, the recipient is required to contribute at least the cost share percentage of total expenditures incurred through the date of termination.

The recipient is solely responsible for managing cost share contributions by the project team and enforcing cost share obligation assumed by project team members in subawards or related agreements.

2. Cost Share Allocation

Each project team is free to determine how best to allocate the cost share requirement among the team members. The amount contributed by individual project team members may vary, as long as the cost share requirement for the entire project is met.

3. Cost Share Types and Allowability

Cost share must meet requirements set forth in 2 C.F.R. §§ 200.306 and 910.130, and cost principles set forth in 2 C.F.R. §§ 200.400-476 and 2 C.F.R. §§ 910.352. In addition, cost share must be verifiable upon submission of the full application. Cost share may be provided in the form of cash or cash equivalents, or in-kind contributions. Cost share must come from non-federal sources (unless otherwise allowed by law), such as project participants, state or local governments, or other third-party financing. DOE Loan Guarantees cannot be leveraged by applicants to provide the required cost share or otherwise support the same scope that is proposed under a project.

Cost share may be provided by the recipient, subrecipients, or third parties (entities that do not have a role in performing the scope of work). Vendors/contractors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.

Cash contributions include but are not limited to personnel costs, fringe costs, supply and equipment costs, indirect costs, and other direct costs.

In-kind contributions are those where a value of the contribution can be readily determined, verified, and justified but where no actual cash is transacted in securing the good or service comprising the contribution. Allowable in-kind contributions include but are not limited to the donation of volunteer time or the donation of space or use of equipment.

Project teams may use funding or property received from state or local governments to meet the cost share requirement, so long as the federal government did not provide the funding to the state or local government.

Cost share contributions must be specified in the project budget, verifiable from the recipient's records, and necessary and reasonable for proper and efficient accomplishment of the project. As all sources of cost share are considered part of total project cost, DOE will review the cost share dollars according to the same federal regulations as federal dollars to the project. Every cost share contribution must be reviewed and approved in advance by the Grants Officer and incorporated into the project budget before the expenditures are incurred.

4. Unallowable Cost Share Sources

The recipient and subrecipient(s) may not use the following sources to meet cost share obligations:

- Cost share derived from federal sources (unless otherwise authorized by law).
- Cost share that does not meet:
  - Requirements set forth in 2 C.F.R. §§ 200.306 and 910.130;
  - Cost principles set forth in 2 C.F.R. §§ 200.400-476 and 2 C.F.R. §§ 910.352;
  - For State Energy Programs, refer to 10 C.F.R. §§ 420.
- Cost share derived from the DOE loan program.
- Revenues or royalties from the prospective operation of an activity beyond the project period;
- Proceeds from the prospective sale of an asset of an activity;
- Federal funding or property (e.g., federal grants, equipment owned by the federal government);
- Expenditures that were reimbursed under a separate federal program.
- Cash or in-kind contributions used to meet cost share requirements for another federal project or program;
- Existing data as an in-kind contribution (e.g., data owned by an entity, that is not routinely sold commercially but is instead donated to the project and assigned a value);
- In general, deferred or avoided costs such as unrealized tax credits; or
- If applicable, other items as identified by DOE Programs and as specified in the applicable NOFO Part 1, *Eligibility—Cost Sharing*.

5. Cost Share Contributions by FFRDCs

Because FFRDCs are funded by the federal government, costs incurred by FFRDCs generally may not be used to meet the cost share requirement. FFRDCs may contribute cost share only if the contributions are paid directly from the contractor's Management Fee or another non-federal source.

6. Cost Share Verification

Applicants are required to provide written assurance of their proposed cost share contributions in their applications. If selected for award negotiations, applicants are required to provide additional

information and documentation regarding their cost share contributions. Please refer to the NOFO Part 1, *Eligibility—Cost Sharing* for specific requirements.

7. Cost Share Calculation Examples

Cost sharing is calculated as a percentage of the Total Project Cost. FFRDC costs must be included in Total Project Costs.

Example 1, Standard Cost Share Calculation

The following is an example of how to calculate cost sharing amounts for a project with $1 million in federal funds with a minimum 20% non-federal cost sharing requirement:

- Formula: Federal share ($) divided by federal share (%) = Total Project Cost
  Example: $1,000,000 divided by 80% = $1,250,000

- Formula: Total Project Cost ($) minus federal share ($) = Non-federal share ($)
  Example: $1,250,000 minus $1,000,000 = $250,000

- Formula: Non-federal share ($) divided by Total Project Cost ($) = Non-federal share (%)
  Example: $250,000 divided by $1,250,000 = 20%

Example 2, Blended Cost Share Calculation

The following example shows the math for calculating required cost share for a project with $2 million in federal funds, with four tasks requiring different non-federal cost share percentages:

Task	Proposed Federal Share	Federal Share %	Recipient Share %
Task 1 (R&D)	$1,000,000	80%	20%
Task 2 (R&D)	$500,000	80%	20%
Task 3 (Demonstration)	$400,000	50%	50%
Task 4 (Outreach)	$100,000	100%	0%

Federal share ($) divided by federal share (%) = Task Cost

Each task must be calculated individually as follows:

Task 1

- $1,000,000 divided by 80% = $1,250,000 (Task 1 Cost)
- Task 1 Cost minus federal share = non-federal share
- $1,250,000 - $1,000,000 = $250,000 (non-federal share)

Task 2

- $500,000 divided 80% = $625,000 (Task 2 Cost)
- Task 2 Cost minus federal share = non-federal share
- $625,000 - $500,000 = $125,000 (non-federal share)

Task 3

- $400,000 / 50% = $800,000 (Task 3 Cost)

- Task 3 Cost minus federal share = non-federal share
- $800,000 - $400,000 = $400,000 (non-federal share)

Task 4

- Federal share = $100,000
- Non-federal cost share is not mandated for outreach = $0 (non-federal share)

The calculation may then be completed as follows:

Tasks	$ Federal Share	% Federal Share	$ Non-Federal Share	% Non-Federal Share	Total Project Cost
Task 1	$1,000,000	80%	$250,000	20%	$1,250,000
Task 2	$500,000	80%	$125,000	20%	$625,000
Task 3	$400,000	50%	$400,000	50%	$800,000
Task 4	$100,000	100%	$0	0%	$100,000
Totals	$2,000,000		$775,000		$2,775,000

Blended Cost Share %

- Non-federal share ($775,000) divided by Total Project Cost ($2,775,000) = 27.9% (non-federal)
- Federal share ($2,000,000) divided by Total Project Cost ($2,775,000) = 72.1% (federal)

B. Other Eligibility Information

Refer to NOFO Part 1, *Eligibility—Eligible Applicants* for NOFO-specific eligibility information. The information below is standard for DOE NOFOs.

1. Questions Regarding Eligibility

DOE will not make eligibility determinations for potential applicants prior to the date on which applications to the NOFO Part 1 must be submitted. The decision to apply in response to the NOFO Part 1 lies solely with the applicant.

2. Entity of Concern Prohibition

Prohibition

No Entity of Concern as defined in Section 10114 of Public Law 117-167 (42 USC 18912), may receive any grant, contract, cooperative agreement, or loan of $10 million or more in Department of Energy funds, including funds made available by the Consolidated Appropriations Act, 2024 (Public Law 118-42).

In addition, for all awards involving Departmental activities authorized under Public Law 117-167, no Entity of Concern (including an individual that owns or controls, is owned or controlled by, or is under common ownership or control with an Entity of Concern) may receive DOE funds or perform work under any award, subject to certain penalties. See Section 10114 of Public Law 117-167 (42 USC 18912) and Division D, Title III, Section 310 of Division D of the Consolidated Appropriations Act of 2024 (Pub. L. No. 118-42) for additional information.

By submitting an application to this NOFO, the applicant is certifying that neither the applicant nor any of the project participants qualify as Entities of Concern.

Definitions
Entity of Concern is defined as in section 10114 of Public Law 117-167 (42 USC 18912), also known as the CHIPS and Science Act, as any entity, including a national, that is—

(A) identified under section 1237(b) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (50 U.S.C. 1701 note; Public Law 105–261);

(B) identified under section 1260H of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (10 U.S.C. 113 note; Public Law 116– 283);

(C) on the Entity List maintained by the Bureau of Industry and Security of the Department of Commerce and set forth in Supplement No. 4 to part 744 of title 15, Code of Federal Regulations;

(D) included in the list required by section 9(b)(3) of the Uyghur Human Rights Policy Act of 2020 (Public Law 116–145; 134 Stat. 656); or

(E) identified by the Secretary, in coordination with the Director of the Office of Intelligence and Counterintelligence and the applicable office that would provide, or is providing, covered support, as posing an unmanageable threat—

(i) to the national security of the United States; or

(ii) of theft or loss of United States intellectual property.

3. Artificial Intelligence (AI) Application Use

Any use of artificial intelligence in the creation of any part of an application for this NOFO must be appropriately attributed. Even with the use of artificial intelligence, each applicant is responsible for and is representing to the U.S. Government that the information in its application documents is accurate, that the applicant is fully capable of performing the work described in the application, and that the submission of the application does not and will not infringe or violate any rights of any third party or entity.

III. Program Description

Refer to NOFO Part 1, *Program Description* for all information related to the specific NOFO goals, objectives, and topic areas, if any.

A. Informational Webinar

Refer to the NOFO Part 1, *Basic Information—Key Dates* to determine if DOE plans to conduct an informational webinar while the NOFO is open.

If applicable, DOE will conduct an informational webinar during the NOFO process. It will be held after the initial NOFO release but before the due date for concept papers or the application if concept papers are not required.

Attendance is not mandatory and will not positively or negatively impact the overall review of any applicant submissions. The webinar will be open to all potential applicants who wish to participate. Applicants should refrain from asking questions or communicating information that would reveal confidential and/or proprietary information specific to their project.

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IV. Application Content and Form

This section contains supplemental information to help applicants understand the application content and form requirements outlined in the NOFO including detailed information on the content and naming conventions of the application content. Please refer to the NOFO Part 1, *Application Content and Form* section for the application contents and form specific to your application.

Note that some of the required application elements below have separate requirements for Research and Development (R&D) versus non-R&D NOFOs. Refer to the NOFO Part 1, *Application Content Requirements* section for specific instructions.

A. Application Format Summary

All submissions must conform to the form and content requirements described below. Refer to the NOFO Part 1, *Application Content and Form* for the page limits.

Format Requirements	
Parameter	**Requirement**
File Format	Portable Document Format (PDF) unless stated otherwise.
Language	English
Paper Size	8.5" x 11"
Margins	Not less than 1" (>= 1") on every side.
Font	Calibri typeface, a black font color, and a font size of 11-point or larger (except in figures or tables, which may be 10-point font). A symbol font may be used to insert Greek letters or special characters, but the font size requirement still applies.
References	References must be included as footnotes or endnotes in a font size of 10 or larger. Footnotes and endnotes are counted toward the maximum page requirement.
Tracking ID Number	A tracking ID number will be assigned to the application once an applicant begins the application process and saves the application. Once saved, the tracking ID number will be generated at the bottom of the application. The tracking ID number must be included with all application documents. Specifically, the control number must be prominently displayed on the upper right corner of the header of every page and included in the file name (i.e., *Tracking ID Number_Applicant Name_Application*).
Page Numbers	Page numbers must be included in the footer of every page. Each submission must not exceed the specified maximum page limit, including cover page, charts, graphs, maps, and photographs

[1] Tribal land is as defined in 25 U.S.C. §§ 3501(2), (3), (4)(A) and (13).
[2] An authorized representative must be an elected official or designated leader according to the traditions, constitution, or charter of the Indian Tribe, or someone with relevant delegated authority within the Tribal government. Examples include: Chief, Chairman, Chairwoman, Governor, Nation Representative, President, Chief Executive Officer, Chief Financial Officer, Speaker of the Council, Speaker of the Congress, Tribal administrator.

	when printed using the formatting requirements set forth above and single spaced.
Page Count Limitations	If applicants exceed the maximum page limitations, DOE will review only the authorized number of pages and disregard any additional pages.

The following information is intended to address issues typically encountered during the application process. If you have any questions about NEUP.gov site registration, or require technical assistance, contact the Innovative Nuclear Research (INR) Integration Office at neup@inl.gov.

Additional Application Information	
Deadlines for Submission	NEUP.gov is designed to enforce the deadlines specified in this NOFO. The "Save" and "Submit" buttons will automatically disable at the defined submission deadlines.
Submission Difficulties	Applicants who experience technical difficulties with submission PRIOR to the NOFO deadline should contact NEUP@inl.gov for assistance.
Application Forms	To access application forms and instructions available on NEUP.gov, select the appropriate call under "My Applications."
Size Limitations	The maximum file size that can be uploaded to NEUP.gov is 100MB. Files larger than 100MB cannot be uploaded and hence cannot be submitted for review. If a file is larger than 100MB but is still within the maximum page limit specified in the NOFO, it must be broken into parts and denoted to that effect. For example: "TechnicalVolume_Part_1," "TechnicalVolume_Part_2." DOE will not accept late submissions that resulted from technical difficulties due to uploading files that exceed 100MB.

B. Application Content Requirements

The NOFO Part 1, *Application Content Requirements* identifies which of the following application documents are required including the program-specific requirements such as the technical volume and specified page limits. Each application must be limited to a single concept and must not exceed the stated page limits.

DOE provides detailed guidance on the content and form of each component below.

1. NSUF Letter of Intent

A letter of intent (LOI) is a requirement for projects needing NSUF access. Applicants must submit a letter of intent by the specified due date and time to be eligible to submit an application. Applicants who do not submit a letter of intent cannot submit an application. Letters of intent will be used by DOE to plan for the merit review process. The submission should not contain any proprietary or sensitive business information. Letters of intent will not be used for down-selection purposes, and do not commit an applicant to apply. Applicants are not bound to the statements made in the letter of intent; it is

reasonable for project partners, locations, or other factors to change during the application development process. DOE will not provide feedback on the Letters of Intent.

Application forms and instructions are available at the NEUP.gov website. To access these materials: (1) go to www.NEUP.gov; (2) select "Login" from the top right-hand corner of the screen; (3) enter your user credentials; (4) select "Applications" from the menu; and (5) find "FY 2026 NSUF Letter of Intent" and click on "Create New Application" for the type of application you are creating.

Each applicant applying for NSUF access must provide the following information as part of the letter of intent:

Letter of Intent Content Requirements	
Project Title	The project title should be consistently used across other application documents.
Technical Topic or Area	Applicable topic area; • NSUF-1 (have R&D funds available); and • NSUF-2 for NSUF Access Only (no R&D funds available).
Lead Organization	Complete legal name of the lead organization.
Organization Type	Academic; Federal Government; Federally Funded Research and Development (FFRDC); Government Owned and Operated (GOGO); Indian/Native American Tribal Government; Individual; Large Business; Non-Profit; Small Business; State and/or Local Government.
Recipient Technical Point of Contact (POC)	Name and title for the Principal Investigator (PI) or Lead Project Manager (LPM)].
Identification of NSUF Facilities	Points of contact (POCs) for the NSUF facilities, as well as facility descriptions, are provided on the NSUF website at NSUF.inl.gov/Page/Partners. NSUF Partner Institution contacts are also the Technical Leads. Technical Leads are assigned by the NSUF Program Office and provided to the applicant. For assistance in identifying a NSUF Technical Lead or facility POC, please contact NSUF staff members listed on the website NSUF.inl.gov.

The letter of intent includes a brief project description, which should cover only the NSUF scope of the project. The letter of intent is uploaded to the electronic form at www.NEUP.gov. Applicants must include the following information:

Letter of Intent Requirements	
Project Description	A Letter of Intent template is available via this link: Documents - NEUP - Nuclear Energy University Program
Page Limit	3-page limit; 11-point font

Save template as: FY26 LOI [Tracking ID#].pdf

Access to NSUF capabilities will require agreement and final signature to the User Agreement. The terms and conditions of the User Agreement are non-negotiable and failure to accept the terms and conditions

of the User Agreement will terminate processing and review of NSUF applications. To ensure compliance throughout the application review process, applicants must indicate in the LOI that the User Agreement has been read, understood, and the terms and conditions are accepted. Further, submission of a Pre-Application and a Full Application indicates the applicant will comply and agree to the terms and conditions of the User Agreement. Upon award of an NSUF supported project, the User Agreement must be signed before activities can begin on the project. An applicant cannot submit an LOI without checking the "I Agree" checkbox. Failure to sign the non-negotiable User Agreement within 30 days of receipt of the User Agreement may result in cancellation of an awarded project.

When completing the Pre-Application form via www.NEUP.gov, it is important that you link the LOI to the Pre-Application to retain the same tracking identification number. To link the LOI and Pre-Application, you must select your application from the Pre-Application drop-down list. Doing this assigns the same tracking identification number to the Pre-Application that is used for the LOI. The Pre-Application must be submitted from the same user account that the LOI was submitted under. **Do not start a new Pre-Application.**

2. NSUF Pre-Application Statement of Work

NSUF applicants are required to provide a Pre-Application Statement of Work (SOW) in support of their NSUF Pre-Application. The Pre-application SOW must be submitted in the Application Site located at NEUP.gov using the NSUF Statement of Work Template found at Documents - NEUP - Nuclear Energy University Program.

The Pre-application SOW is necessary to inform the NSUF feasibility and readiness reviews. The document is not used for the merit review. The Pre-Application SOW will be appended to the already submitted Pre-Application. To append the Pre-Application SOW: 1) Find the submitted Pre-Application in the "My Applications" section of the submission website; 2) Open the submitted Pre-Application by using the 'pencil' icon; 3) Scroll to the bottom of the application form; and 4) Click "Attach File" on the "Post Submission Attachment" section and attach the Pre-application SOW.

Any submissions uploaded or altered after the deadline outlined in the Consolidated Innovative Nuclear Research (CINR) NOFO will be disregarded. Do not make changes to the Pre-application SOW after the submission deadline, as the upload timestamp is used to confirm timely submission:

Save template as: FY26 PreApp SOW [Tracking ID#].pdf

NOTE: Do not resubmit the Pre-Application. A timestamp will appear in the "File Upload Date" area, which is confirmation that the Pre-application SOW was appended correctly.

3. NSUF Full Application Statement of Work

If an NSUF applicant is invited to submit a Full Application, a Full Application SOW is required, prior to the submittal of their Full Application. Full Application SOW documents are submitted at NEUP.gov using the NSUF Statement of Work Template found at Documents - NEUP - Nuclear Energy University Program.

The Full Application SOW is necessary to complete the NSUF feasibility and readiness reviews and determine a value (cost) for NSUF access. The document is not used for merit review. Ensure that any required readiness discussion is included as described in NOFO Part 2, *Appendix D*. The Full Application

SOW is not included in the technical peer review. Technical details that will inform a peer reviewer must be included in the 15-page technical narrative.

If an application is awarded, the applicant reviews the Full Application SOW and is allowed to make minor corrections (typographical errors, schedule adjustments and so forth). Changes to work scope are not allowed. This document becomes the Final SOW; it is the control document for work performed on a project. Once the project is complete, the Final SOW will be placed in NSUF's Nuclear Research Data System (NRDS) data repository. See NOFO Part 2, *Award Administration Information* for more on the NRDS.

The Full Application SOW must contain a summary of the proposed activity, suitable for dissemination to the public. It should be a self-contained document that identifies the following: the name of the applicant; the name of the PI(s); the project title; a list of major deliverables; the scope and objectives of the project; a description of the project, including major tasks (phases, planned approach, etc.) and methods to be employed; the potential impact of the project (i.e., benefits, outcomes); and the names of senior/key personnel (for collaborative projects). This document must not include any proprietary or sensitive business information as it will be available to the public after awards are made and the project is completed.

Full Application SOW documents are submitted by appending to the already submitted Pre-Application. To append the Full Application SOW: 1) find the submitted Pre-Application in the "My Applications" section of the submission website; 2) Open the submitted Pre-Application by using the 'pencil' icon; 3) Scroll to the bottom of the application form; and 4) Click "Attach File" on the "Post Submission Attachment" section and attach the Full Application SOW. Do not delete the Pre-application SOW. Applicants must submit a Full Application SOW even if there are no changes from the Pre-application SOW.

NOTE: A timestamp will appear in the "File Upload Date" area, which is confirmation that the Statement of Work was appended correctly.

Save template as: FY26 Full App [Tracking ID#].pdf

4. Pre-Application (Mandatory except for IRPs)

Pre-Applications are a mandatory requirement for R&D and NSUF Projects (in Appendices A and C of this CINR NOFO) for U.S. University-, National Laboratory-, or Industry-led projects. Pre-Applications must be submitted by the date and time specified in NOFO Part 1, Key Facts.

The PI and named collaborators identified in the Pre-Application may not be changed in the Full Application without adequate justification and consent of the Contracting Officer. If a change is necessary, the applicant shall provide this request and justification at least 7 calendar days prior to the full application due date.

The following information shall be provided for all Pre-Applications:

a. Pre-Application Technical Volume (formerly known as Pre-Application Narrative)

Applicant shall provide a narrative that addresses the specific information below:

- Title of project.

- Technical topic area identification (e.g., NM-1). The PI is responsible for selecting the appropriate topic area, and this may not be changed between the Pre-Application and Full Application.
- Name of PI(s) and associated organization(s).
- A summary of the proposed project, including a description of the project and a clear explanation of its importance and relevance to the objectives in NOFO Part 1, *Program Description.*
- Major deliverables and outcomes the R&D will produce.
- Estimated cost of project (not including value of any NSUF access).
- Timeframe for execution of proposed project (specify the time period for R&D, one-, two, or three-year period or up to seven years for NSUF).
- Specific facilities and equipment access requirements (for the NSUF access portion only).
- Proprietary data, such as chemical composition or physical properties of a material, that the applicant wishes to protect during the irradiation or PIE phase of the project. This may negatively impact the selection of the project.

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

Save template as: FY26 Pre-Application Technical Volume [Tracking ID#].pdf

b. Benefit of Collaboration

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. It may contain brief biographies of staff and descriptions of the facilities wherein the research will be conducted. Please indicate within this section whether the application has benefit or influence on other ongoing or proposed Office of Nuclear Energy (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.

Save template as: FY26 RPA Benefit of Collaboration [Tracking ID#].pdf

c. Publications

Applications must include a list of publications that resulted from previous NE (NEUP, NEET, NSUF) funded projects. A reference to the project that supported each publication should be included. If the PI has not led an NE (NEUP, NEET, NSUF) project, this document is not required.

Save template as: FY26 RPA NE Supported Publications [Tracking ID#].pdf

5. Principal Investigator Resume

The lead PI shall provide a brief curriculum vitae (CV) that lists the following:

- Provide a full biographical vitae for the PI listed in Section A of the R&R Budget form.
- Contact information.
- Education and Training: provide institution, major/area, degree, and year for undergraduate, graduate, and postdoctoral training. List all education and training, foreign

or domestic, at the applicant institution or elsewhere, whether or not remuneration is received, and, whether full-time, part-time, or voluntary.

- Research and Professional Experience: beginning with the current position list, in chronological order (newest to oldest), professional/academic positions with a brief description. List all professional or institutional appointments, foreign or domestic, at the applicant institution or elsewhere, whether or not remuneration is received, and, whether full-time, part-time, or voluntary.
- Publications: Provide a 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.
- Patents, copyrights, and software systems developed may be provided in addition to or substituted for publications.
- There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.

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

Save template as: FY26 RPA CV [Last Name] [Tracking ID#].pdf

a. Collaborators

A collaborator is an individual who 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 as a collaborator directly on the application form.** The applicant must have the full consent of all collaborators prior to submitting an application. **Any individuals that do not meet these criteria should not be listed as collaborators on the application.**

NE has two designations for collaborators: 1) senior/key personnel and 2) other collaborators. Document requirements will vary depending on whether an individual is designated as 'senior/key personnel' or as a general collaborator. **Senior/key personnel should be listed in the first collaborators section on the application form. Other collaborators should be listed on the second collaborators section of the application form.**

Refer to each required area of the pre- and full-application requirements to provide needed information for all senior/key personnel.

NOTE: If FFRDC personnel are named on the application, **in any capacity**, those individuals **MUST** have a Letter of Authorization from their cognizant DOE Contracting Officer. Applicants **should not** list any FFRDC individual that does not provide a material contribution to the project. It is inappropriate for applicants to name FFRDC personnel for the sole purpose of 'consulting' or 'advising' the project team in an attempt to bolster confidence in the application's technical scope (e.g. senior advisory board member/consultant)

b. Waiver for Foreign Entity Participation

All recipients receiving funding under the applicable NOFO Part 1 must be incorporated (or otherwise formed) under the laws of a state or territory of the United States and have a physical location for

business operations in the United States. To request a waiver of this requirement, an applicant must submit an explicit waiver request in the application.

Waiver Criteria

Foreign entities seeking to participate in a project funded under this NOFO must demonstrate to the satisfaction of DOE that:

1. Its participation is in the best interest of the United States industry and United States economic development;
2. The project team has appropriate measures in place to control sensitive information and protect against unauthorized transfer of scientific and technical information;
3. Adequate protocols exist between the United States subsidiary and its foreign parent organization to comply with export control laws and any obligations to protect proprietary information from the foreign parent organization;
4. The work is conducted within the United States, and the entity acknowledges and demonstrates that it has the intent and ability to comply with the U.S. Competitiveness Provision (see Post-Award Requirements--U.S. Manufacturing Commitments below*)*; and
5. The foreign entity will satisfy other conditions that DOE may deem necessary to protect U.S. government interests.

Content for Waiver Request

A Foreign Entity waiver request must include all of the following:

1. Information about the entity(ies) involved in the proposed work to be conducted outside the United States (i.e., the entity seeking a waiver and the entity(ies) that will conduct the work): name, point of contact, and proposed type of involvement in the project;
2. Country of incorporation, the extent of the ownership/level control by foreign entities, whether the entity is state owned or controlled, a summary of the ownership breakdown of the foreign entity, and the percentage of ownership/control by foreign entities, foreign shareholders, foreign state, or foreign individuals;
3. The rationale for proposing a foreign entity participant (must address criteria above);
4. A description of the project's anticipated contributions to the United States economy;
    a. How the project will benefit United States R&D and manufacturing, including contributions to employment in the United States and growth in new markets and jobs in the United States;
    b. How the project will promote domestic American manufacturing of products and/or services;
5. A description of how the foreign entity's participation is essential to the project;
6. A description of the likelihood of IP being created from the work and the treatment of any such IP; and
7. Countries where the work will be performed. (Note: If any work is proposed to be conducted outside the United States, the applicant must also complete a separate request foreign work waiver.)

DOE may also require:

1. A risk assessment with respect to IP and data protection protocols that includes the export control risk based on the data protection protocols, the technology being developed, and the foreign entity and country. These submissions could be prepared by the project lead (if not the recipient), but the recipient must make a representation to DOE as to whether it believes the data protection protocols are adequate and make a representation of the risk assessment – high, medium, or low risk of data leakage to a foreign entity.

2. Additional language be added to any agreement or subagreement to protect IP, mitigate risk, or other related purposes.

DOE may require additional information before considering the waiver request. DOE's decision concerning a waiver request is not appealable.

c. Performance of Work in the United States (Foreign Work Waiver)

Requirement:
All work for the projects selected must be performed in the United States, absent a written waiver approved by DOE and prior approval by the Grants Officer. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the application. A separate waiver request must be submitted for each entity proposing performance of work outside of the United States.

Overall, a waiver request must demonstrate to the satisfaction of DOE that it would further the purposes of this NOFO, and is otherwise in the best interest of the DOE programmatic objectives, is in the economic and energy security interests of the United States, does not pose an undue RTES risk (see Due Diligence Review for Research Technology and Economic Security below) and is otherwise in the best interest of DOE program goals and agency priorities. A request for a foreign work waiver must include the following:

1. The rationale for performing the work outside the United States ("foreign work");
2. A description of the work proposed to be performed outside the United States;
3. An explanation as to how the foreign work is essential to the project;
4. A description of the anticipated benefits to be realized by the proposed foreign work and the anticipated contributions to the U.S. economy;
5. The associated benefits to be realized and the contribution to the project from the foreign work;
6. How the foreign work will benefit the United States, including manufacturing, contributions to employment in the United States and growth in new markets and jobs in the United States;
7. How the foreign work will promote manufacturing of products and/or services in the United States;
8. A description of the likelihood of IP being created from the foreign work and the treatment of any such IP;
9. The total estimated cost (DOE and recipient cost share) of the proposed foreign work;
10. The countries in which the foreign work is proposed to be performed; and
11. The name of the entity that would perform the foreign work.

DOE may require additional information before considering the waiver request. DOE's decision concerning a waiver request is not appealable

d. Intention to Include Research Experiences for Undergraduate Supplement

Applicants will indicate whether they intend to request an REU supplement as part of a CINR full application. If an applicant selects that they are "participating in an REU supplement" during the pre-application, they are not required to make that same selection during the full application.

e. Agreement Requirements

Institutions will be expected to follow Quality Assurance (QA) principles and requirements in conducting R&D activities. If the application is successful, the integrity of R&D products and their usability by NE is

predicated on meeting the QA requirements listed in the Quality Assurance (QA) Worksheet located at Documents - NEUP - Nuclear Energy University Program, as they apply to a specific scope of work and associated deliverables. Further, each institution serving as a team member to the proposed project shall be identified in the Pre-Application with its commitment made to collaborate in the CINR NOFO process.

If applicable, access to NSUF capabilities will require agreement and final signature to the User Agreement. **The terms and conditions of the User Agreement are non-negotiable, and failure to accept the terms and conditions of the User Agreement will terminate processing and review of NSUF applications.** To ensure compliance throughout the application review process, applicants must state, during the NSUF Access Only and Full Application submission processes, that the User Agreement has been read, understood, and the terms and conditions are accepted. Further, submission of a NSUF supported Pre-Application and a Full Application indicates the applicant will comply and agree to the terms and conditions of the User Agreement. Upon award of an NSUF supported project, the User Agreement must be signed before activities will begin on the project. Failure to sign the non-negotiable User Agreement within 30 days of receipt of the User Agreement may result in cancellation of an awarded project.

Pre-Application Required Document Summary

Component	File Format	Page Limit	File Name
Technical Volume	PDF	5 pages	FY26 Technical Volume [Tracking ID#].pdf
Principal Investigator Resume (Research and Development (R&D))	PDF	3 pages each	FY26 CV [Last Name] [Tracking ID#].pdf
Benefit of Collaboration	PDF	4 pages	FY26 BOC [Tracking ID#].pdf
Publications	PDF	N/A	FY26 NE Supported Publications [Tracking ID#].pdf

6. Full Application Content Requirements

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).

You must save the Full Application before a tracking ID number will be generated.

a. Conflict of Interest (COI) Acknowledgement

The DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy) can be found at https://www.energy.gov/management/department-energy-interim-conflict-interest-policy-requirements-financial-assistance. 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 file as: FY26 CFA COI [Tracking ID#].pdf

b. Application for Federal Assistance (SF-424 R&R)

Applicants must complete the SF-424, R&R form: Application for Federal Assistance, which is available here, and on the application site. The list of certifications and assurances can also be found on the site noted above. Complete all required fields in accordance with the instructions on the form.

The System for Award Management (SAM) is the central repository for common government-wide certifications and representations required of Federal grants recipients. As registration in SAM is required for eligibility for a federal award and registration must be updated annually, Federal agencies use SAM information to comply with award requirements and avoid increased burden and costs of separate requests for such information, unless the recipient fails to meet a federal award requirement, or there is a need to make updates to their SAM registration for other purposes.

Please ensure that the dates (Block 12) and dollar amounts (Block 15) on the SF-424 are for the complete project period and not just the first project year, first phase, or another subset of the project period.

Save file as: FY26 CFA SF424 [Tracking ID#].pdf

c. Research & Related Other Project Information

Applicants shall complete items 1-6 on the R&R Other Project Information from available at 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 document as: FY26 CFA R&R Other [Tracking ID#].pdf

d. Project Summary/Abstract File (use provided template on application site)

The two (2) 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 applicant name, names of major participants, the project title, the objectives of the project, and 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. The required templates are available at NEUP.inl.gov/documents or in the links provided for Appendix A topic areas (NEUP Abstract Template) and Appendix C NSUF topic area (NSUF Abstract Template).

Summary of Public Release Content	
Applicant Name	Provide the legal name of the applicant.
Major Participant Names	List all significant project participants and their roles.
Lead Project Manager / Principal Investigator(s)	Provide names and titles.
Project Title	Provide the title for the planned project.
Project Objectives	Identify the overarching project objectives aligned with requirements set forth in the NOFO.
Project Description	Should be a self-contained document that identifies the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project, and major participants (for collaborative projects).
Publicly Releasable (Unlimited Rights)	This document must not include any proprietary or business-sensitive information, as DOE may make it available to the public after selections are made.
Page Limit Clarification	The summary must not exceed the stated page limit when printed, using standard 8.5" x 11" paper with 1" margins (top, bottom, left, and right) with font not smaller than 12-point.

Save template as: FY26 CFA Summary Abstract [Tracking ID#].pdf

e. Full Application Technical Volume

Applicant shall provide a written narrative addressing the strategy to execute R&D that supports the specified topic area. The documentation provided shall include the items specified below:

- Application title.
- Final Topic Area Identification (FL-1, IC-1, etc.).
- Project Objectives: Provide a clear, concise statement of specific objectives/aims of the proposed project in support of the NE mission.
- Proposed scope description.
- Logical path to accomplishing scope, including descriptions of tasks. This section will provide a clear, concise statement of the specific objectives/aims of the proposed project. This section should be formatted to address each of the merit review criterion and sub-criterion listed in NOFO Part 1, *Application Review Information*. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. DOE has the right to evaluate and consider only those applications that separately address each of the merit review criteria.

- Relevance and Outcomes/Impacts: This section will provide a clear explanation of its importance and relevance to the NE mission as described in the objectives in NOFO Part 1, *Application Review Information.*
- Schedule: Define timelines for executing the specified topic area, including all important activities or phases of the project. Successful applicants must use this schedule when reporting project progress.
- Milestones and deliverables.
- Type/Description of facilities that will be used to execute the scope (if applicable).
- The roles and responsibilities of each partnering organization in the execution of the topic area. Describe the role and work to be performed by each participant/investigator, the business arrangements between the applicant and participants, and how the various efforts will be integrated and managed.
- Unique challenges to accomplishing the work and planned mitigations.
- Information, data, plans, or drawings necessary to explain the details of the application.
- Source, scope, and duration of R&D funding (i.e., support for the PI in the form of a Letter of Commitment), if applicable, associated with request for NSUF Access Only (NSUF-2 only).
- Proprietary data, such as chemical composition or physical properties of a material, that the applicant wishes to protect during the irradiation or PIE phase of the project. This may negatively impact the selection of the project (NSUF-1 and NSUF-2 only).

Page limits include cover page, table of contents, charts, graphs, maps, photographs, tables, references and other pictorial presentations while complying with the document format instructions in NOFO Part 1, *Summary of Application Requirements* and NOFO Part 2, *Application Content and Form*. Pages outside the specified page limits and font size, including references, will be redacted and unavailable for evaluators to review.

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: FY26 Full App Technical Volume [Tracking ID#].pdf

f. Research Experiences for Undergraduates (REU) Plan

If supplemental REU funds are requested, the applicant shall provide details about the proposed REU activities including:

- Total amount of requested funds and anticipated number of supported students.
- Structure of the REU program (e.g., summer program, on-campus, etc.), including the process and criteria for selecting students.
- Nature of each prospective student's involvement in the research project, how the student will be managed including assessing status of work performed and mentorship.
- Plan to incorporate REU within the overall project schedule.
- The experience of the PI (or other prospective research mentors) in involving undergraduates in research, including any other REU type support.

Applicants should provide sufficient detail to describe the impacts that an REU supplement could have for the project and the potential positive impacts to overall student development, workforce development, and research outcomes.

Save file as: FY26 CFA REU Plan [Tracking ID#].pdf

g. Resumes for Research and Development (R&D) NOFOs (Required for Covered Individuals)

A resume provides information reviewers can use to evaluate an individual's skills, experience, and potential for leadership within the scientific community. Applicants must submit a resume or biographical sketch (see description below the table) for each Principal Investigator or Lead Project Manager, Senior/Key Personnel, and all covered individuals as defined in the NOFO Part 1, *Application Content and Form—Application Content Requirements, Covered Individual Definition, Designation and Responsibility*.

DOE reserves the right to not proceed with merit reviews for incomplete applications. Applicants must screen resumes to ensure that they do not contain PII such as personal addresses, personal landline/cell phone numbers, and personal emails.

Resumes must include the following information, at a minimum:

Resume Requirements (Research & Development Activities)	
Contact Information	Phone, email, and address.
Education & Training	Provide name of institution, major/area, degree, and year for undergraduate, graduate, and postdoctoral training.
Research & Professional Experience	Beginning with the current position, list professional/academic positions in chronological order with a brief description. List all current academic, professional, or institutional appointments, foreign or domestic, at the applicant institution or elsewhere, whether remuneration is received, and, whether full-time, part-time, or voluntary.
Awards & Honors	List any notable awards and honors received.
Publications	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. Patents, copyrights, and software systems developed may be provided in addition to or substituted for publications. An abbreviated style such as the Physical Review Letters (PRL) convention for citations (list only the first author) may be used for publications with more than 10 authors.
Patents, copyrights, and software systems developed	May be provided in addition to or substituted for publications.
Additional Criteria	There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.

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

As an alternative to a resume, it is acceptable to use the biographical sketch format approved by the National Science Foundation (NSF). The biographical sketch format may be generated by the Science

Experts Network Curriculum Vita (SciENcv), a cooperative venture maintained at SciENcv: Science Experts Network Curriculum Vitae (nih.gov) also available at Common Form for Biographical Sketch (nsf.gov). The use of a format required by another agency is intended to reduce the administrative burden to researchers by promoting the use of common formats.

NOTE: NSUF technical leads and other NSUF support staff are not required to provide a vitae if they are considered 'other collaborators or personnel'. NSUF support staff must not be listed on the application.

Save Individual Resumes as: FY26 CFA CV [Last Name] [Tracking ID#].pdf

h. Senior/Key Personnel (Covered Individual)

Technical expertise and qualifications are to be provided for individual participants, whether the participant is receiving funding or not (including consultants or national laboratory personnel). All participants making a defined, material contribution that is critical to the success of the project must be listed as collaborators on the application. Applicants must have the full consent of all collaborators prior to submitting the application. 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.

i. Other Collaborators and Personnel

All other partners (and/or their recipient institutions) ***not receiving*** any funding over the life of the cooperative agreement should be listed (including all international collaborators). 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.

NOTE: If FFRDC personnel are named on the application, **in any capacity**, those individuals **MUST** have a Letter of Authorization from their cognizant DOE Contracting Officer. Applicants **should not** list any FFRDC individual that does not provide a material contribution to the project. It is inappropriate for applicants to name FFRDC personnel for the sole purpose of 'consulting' or 'advising' the project team in an attempt to bolster confidence in the application's technical scope (e.g., senior advisory board member/consultant)

j. Current and Pending Support

Current and pending support is intended to allow the identification of potential duplication, overcommitment, potential conflicts of interest or commitment, and all other sources of support. As part of the application, the Principal Investigator or Lead Project Manager and all covered individuals as defined in the NOFO Part 1, *Application Content Requirements--Covered Individual Definition, Designation, and Responsibility* at the applicant and subrecipient level. Consistent with the chart below, the current and pending support disclosures and biosketch/resumes must together include 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 connections with Malign Foreign Talent Recruitment Program must be identified in current and pending support.

Information Required for Each Activity	
Sponsor of the Activity	The sponsor of the activity or the source of funding. Identify the entity for each proposal and/or active project that is providing the support. Include all Federal, State, Tribal, territorial, local, foreign, public or private foundations, non-profit organizations, industrial or other commercial organizations, or internal funds allocated toward specific projects.
Award Number	The federal award number or any other identifying number.
Award Title	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.
Total Cost or Value	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. For in-kind contributions, enter the US dollar value of the in-kind contribution with an estimated value of $5000 or more. If the dollar value is not readily ascertainable, a reasonable estimate should be provided. If the support is in a foreign country's currency, convert to US dollars at time of submission rounded to the nearest dollar.
Primary Place of Performance	Identify the primary location where the proposal and/or active project is being executed. Enter the City, State/Province, and Country where the organization is located. If the State/Province is not applicable, state N/A.
Award Period	The "Start Date" through "End Date."
Person-months	The person-months of effort per year dedicated to the award or activity. Enter how much time the individual anticipates is necessary to complete the scope of work on the proposal and/or active project. Enter the number of person-months (even if unsalaried) for the current budget period and enter the proposed person-months for each subsequent budget period. If the time commitment is not readily ascertainable, a reasonable estimate should be provided.
Overall Objectives	Provide a brief statement of the overall objectives of the proposal/active project.
Statement of Potential Overlap	Enter a description of the potential overlap with any pending proposal or active foreign or domestic project and this proposal in terms of scope, budget, or person-months planned or devoted to the project by the individual. If there is no potential overlap, state "none".
Digital Persistent Identifier (e.g., ORCID iD)	For R&D NOFOs only, providing an ORCID iD is required.
Certification Statement	All covered individuals must provide a separate disclosure statement listing the required information above regarding current and pending support. Each individual must sign and date their respective certification statement: *I, [Full Name and Title], understand that I have been designated as a covered individual by the Federal funding agency.* *I 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,*

Information Required for Each Activity	
	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. *I also certify that, at the time of submission, I am not a party in a Malign Foreign Talent Recruitment Program. I further understand should I take action to involve myself with a Malign Foreign Talent Recruitment Program during the period of performance of the award, I must notify the recipient's Authorized Agent immediately, but no later than five business days of taking such action and immediately recuse myself from all DOE awards.* **The following certification is required for R&D projects:** *I further certify that within the past 12 months I have completed research security training meeting the requirements in SEC. 10634(b) of 42 USC 19234.*
Foreign Government Sponsorship	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 Common Form for Current and Pending (Other) Support. Regardless of the format used, the individual must include a signature, date, and a certification statement using the language included in the table above.

Current and Pending Support Disclosures must be submitted for all covered individuals, include the exact certification statement provided above, and must be signed and dated in order to be considered.

Definitions:

Current and pending support –

A) All resources made available, or expected to be made available, to an individual in support of the individual's RD&D efforts, regardless of
   i. whether the source is foreign or domestic;
   ii. whether the resource is made available through the entity applying for an award or directly to the individual; or
   iii. whether the resource has monetary value; and

B) includes in-kind contributions requiring a commitment of time and directly supporting the individual's RD&D efforts, such as the provision of office or laboratory space, equipment, supplies, employees, or students.

This term has the same meaning as the term "Other Support" as applied to researchers in 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.

Malign Foreign Talent Recruitment Program as defined in P.L. 117-167, Section 10638(4):

A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual—
   i. engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a U.S. entity or developed with a federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
   ii. being required to recruit trainees or researchers to enroll in such program, position, or activity;
   iii. establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a federal research and development award;
   iv. being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
   v. through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a federal research and development award;
   vi. being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
   vii. being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the federal research and development award;
   viii. being required to not disclose to the federal research agency or employing institution the participation of such individual in such program, position, or activity; or
   ix. having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the federal research and development award; and

(B) a program that is sponsored by—

i. a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
ii. an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232); or
iii. a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).

More information can be found at OSTP-Foreign-Talent-Recruitment-Program-Guidelines.pdf

Save file as: FY26 CFA CPS [Tracking ID#].pdf

i. Digital Persistent Identifier (PID)

For all Research and Development (R&D) NOFOs, individuals that are required to submit Biographical Sketch and/or Current and Pending (Other) Support disclosures must provide a digital persistent identifier (PID) in such disclosures as part of the application. Included PIDs must meet the common/core standards specified in an ORCID iD).

Include this information for each covered individual with the Current and Pending Support submission as described above and in the NOFO Part 1, *Application Content Requirements--Covered Individual Definition, Designation, and Responsibility* section.

ii. Research Security Training Requirement

The research security training requirement described here is required for R&D applications. Covered individuals listed on applications under the NOFO Part 1 are required to certify that they have taken research security training consistent with Section 10634 of the CHIPS and Science Act of 2022. In addition, an applicant who receives an award must maintain sufficient records (records must be retained for the time period noted in 2 CFR 200.334 and made available to DOE upon request) of its compliance with this requirement for covered individuals at the applicant/recipient organization and it must extend this requirement to any and all subrecipients.

Include this information for each covered individual with the Current and Pending Support submission as described above and in the NOFO Part 1, *Application Content Requirements--Covered Individual Definition, Designation, and Responsibility*.

k. 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: FY26 CFA BOC [Tracking ID#].pdf

l. 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 CINR NOFO 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.

Page limit: 2 pages
Save file as: FY26 CFA Capabilities [Tracking ID#].pdf

m. Letters of Commitment and Support (IRPs only if applicable)

Submit letters of commitment from subrecipients. In addition, submit letters of commitment from all third-party cost share providers. If applicable, the letter must state that the third party is committed to providing a specific minimum dollar amount or value of in-kind contributions allocated to cost sharing. Letters of support or endorsement for the project from entities that do not have a substantive role in the project will not be accepted. The following information for each third party contributing to cost sharing should be identified:

Letters of Commitment Content	
Organization Name	Phone, email, and address.
Proposed Dollar Amount to be Provided	Value of the contribution.
Cost Sharing Type	Cash or In-Kind contribution (or both).

Letters of Support for applications in NOFO Part 2, *Appendix A and C* will not be evaluated as part of the review process and should not be added to the application.

Save file as: FY26 CFA IRP Letters [Organization] [Tracking ID#].pdf

n. NSUF Letter of Commitment Funding (NSUF-2 only)

Applicants for NSUF Access Only projects that do not have an R&D funding component are responsible for costs similar to:

- Travel costs to NSUF facilities for facility access training, technical meetings, examinations, experiment loading, etc.;
- Applicant salary support;
- Graduate student support;
- Post-doctoral or other researcher support; and,
- Materials and supplies support at the PI's work location.

A letter of commitment from an appropriate authority is required that explains how the applicant will pay for these types of costs. To append the Letter of Commitment: 1) Find the submitted Pre-Application in the "My Applications" section of the submission website; 2) Open the submitted Pre-Application by using the 'pencil' icon; 3) Scroll to the bottom of the application form; and 4) Click "Attach File" on the "Post Submission Attachment" section and attach the Letter of Commitment.

Save file as: FY26 CFA NSUF LOC [Organization] [Tracking ID#].pdf

o. Program Commitment Letter (NSUF-1 and NSUF-2 if applicable)

For fuels or materials coming from other DOE programs (not NSUF), a statement of program commitment is required. If invited to submit a Full Application, a statement that includes concurrence from the appropriate DOE federal program manager or national technical director must be provided.

Save file as: FY26 CFA NSUF PCL [Organization] [Tracking ID#].pdf

p. Impacted Indian Tribes Documentation (if applicable)

For any application that potentially impacts Indian Tribes or is on Tribal land[1] including when the potentially impacted Indian Tribe is the applicant, applicants are required to submit additional documentation at the time of application, and possibly during negotiation and prior to award. For any project that potentially impacts Indian Tribes, applicants are required to submit documentation demonstrating that an authorized representative of each potentially impacted Indian Tribe is, at a minimum, aware of the nature of the application and its potential impacts to the relevant Indian Tribes. The notified authorized representative[2] must be holding their position while the award is open for applications, and documentation must demonstrate affirmative awareness of the application (e.g. a delivery record from certified mail, a reply by the authorized representative).

For any project intended to be sited on Tribal land(s) or intersecting with Tribal subsurface rights, applicants are required to submit documentation demonstrating support from the relevant Indian Tribes at the time of application. Documentation of support submitted at the time of application will also be considered.

Helpful Resources

Item	Criteria
Letter of Support from Tribal Leadership	The letter must be signed by an authorized representative of the Indian Tribe. The signer(s) must be holding their position while the award is open for applications or negotiations.
Tribal Council Resolution, Board resolution (including the Board of Directors of an Alaska Native Corporation (ANC)), or similar act passed by the legislative body of the Tribal government or Board of Directors of an ANC	Must express support for the project.

For projects not intended to be sited on Tribal land(s) or intersecting with Tribal subsurface rights, but that may have other potential impacts on Tribal resources or reserved rights, letters of support or resolutions of support are strongly encouraged and, depending on the nature of the impact, may be required if selected for negotiation of an agreement. Applicants are encouraged to reach out to Indian Tribes as early as possible in the application process to give Indian Tribes ample time to evaluate and respond.

The following resources may be useful to help determine if a project may impact an Indian Tribe(s) resources or reserved rights and the appropriate contacts. These resources are not exhaustive, and many Indian Tribes have resources or reserved rights which extend beyond their Tribal lands, or are covered within treaties, statutes, or case-law. Applicants are encouraged to do additional research:

Helpful Resources	
Item	**Location**
Map of Indian Lands	https://bia-geospatial-internal.geoplatform.gov/indianlands/
Tribal Treaties Database	https://treaties.okstate.edu/
Directory of federally recognized Tribes and Tribal leaders	https://www.bia.gov/service/tribal-leaders-directory
Best Practices for Identifying and Protecting Tribal Treaty Rights, Reserved Rights, and other similar rights in federal regulatory actions	https://www.bia.gov/sites/default/files/dup/inline-files/best_practices_guide.pdf

To help determine if an Indian Tribe's resources or reserved rights may be impacted by the project, applicants must address the following elements, as applicable to the application. If the applicant is an Indian Tribe, these elements should be addressed to ascertain impacts to Indian Tribes other than the applicant. Applicants do not need to reveal specific details about sacred sites such as specific location or specific ceremonies:

Indian Tribe Resource or Reserved Rights Impact Assessment

Type of Action	Assessment	Mitigation
If Research and Development (R&D)	Identify any [specific resources] which will be [quantified/modeled] on or near Tribal land, traditional homelands, Tribal historic sites, sacred sites, or in areas where an Indian Tribe maintains rights to [specific resources]. Identify which Indian Tribe(s) may be impacted? Explain any instances of uncertainty or confidentiality."	Explain any actions taken by the applicant to mitigate or address any potential impacts identified, including engaging with the potentially impacted Indian Tribe(s), in the application.
If Demonstration and Deployment (D&D)	Identify any elements of the project that will occur on or near Indian land, Tribal historic sites, or sacred sites and describe its potential impacts to Indian Tribes. Identify the potentially impacted Indian Tribe(s).	
Subsurface Resource Activities (carbon sequestration, oil & gas, geothermal, critical minerals, groundwater, etc.)	Identify any Tribal mineral rights, subsurface, or water rights at or near the proposed project location. Explain any relevant studies already performed, such as groundwater studies? Identify which Indian Tribe(s) might be impacted. Explain any instances of uncertainty and any potential for subsurface resource migration which has been considered.	
If Hydropower, Offshore Wind, or other Water Related Projects	Identify any Tribal resources or reserved rights (e.g., water, fishing, or other treaty rights) which could be impacted by the proposed project. Identify any Tribal historic sites, sacred sites, or relevant vistas, which could be impacted by the project. Identify the potentially impacted Indian Tribe(s) and explain any sources of uncertainty or confidentiality.	
If Infrastructure (e.g., Transmission and Pipeline) Projects	Identify any Indian Land (as defined in 25 U.S.C. § 3501), traditional homelands, or Tribal historic and sacred sites which will be crossed, or adjacent to the proposed infrastructure. Identify which Indian Tribe(s) might be impacted and explain any instances of uncertainty or confidentiality.	
Other Actions Not Categorized Above	Identify any [other] proposed actions which may impact an Indian Tribe(s) resources or reserved rights. Tribal resources and reserved rights include, and are not limited to, an Indian Reservation or Land (as defined in 25 U.S.C. § 3501) [or intersecting Tribal sub-surface rights], historic homelands from which they were removed, cultural sites, sacred sites, water rights, mineral and other subsurface rights, fishing rights, and hunting rights. Identify the Tribe(s) potentially impacted and any sources of uncertainty or confidentiality.	

Applicants are required to document any efforts taken to identify any potential impacts to Indian Tribes, Indian lands, Alaska Native regional and village land, traditional homelands, Tribal rights, or Tribal historic sites, or sacred sites. This includes any correspondence with Indian Tribes. These documents should be available on request to DOE. An applicant's failure to submit documentation of an Indian Tribe's awareness, or a letter of support, when required as described above, may constitute grounds for determining an application ineligible, non-responsive to the NOFO, not subject to further review, and/or not otherwise subject to selection or award.

Any application that may potentially impact Indian Tribe(s) may be shared with the potentially impacted Indian Tribe(s). Applicants should include a Notice of Restriction on Disclosure and Use of Data identifying any business sensitive, trade secrets, proprietary, or otherwise confidential information.

Such information shall be used or disclosed only for evaluation of the application or to determine whether the proposed project affects an Indian Tribe(s). If an applicant determines an Indian Tribe(s) will be impacted, the applicant must provide information on the project location, potential impacts and how the applicant will engage with Indian Tribe(s), during the period of performance of the agreement, and, if necessary, after the end of the agreement. If the applicant proposes any activities that could impact Tribal resources or reserved rights, including but not limited to lands, cultural sites, sacred sites, water rights, mineral rights, fishing rights, and hunting rights, they must notify DOE as outlined below in the application submission requirements. DOE will determine if formal government-to-government consultation is needed, and DOE will conduct that consultation accordingly, in addition to any engagement by applicant.

Save file as: FY26 CFA Impacted Indian Tribes [Tracking ID#].pdf

q. Research and Related (R&R) Lead Budget Form

(Required for all lead institutions; Not required for NSUF-2 Access Only applications)

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 NOFO Part 2, *Funding Restrictions*).

If proposing a REU supplement, yearly project budgets for the REU portion of the project should be included in the R&R Lead Budget Form and R&R Subaward Budget Form (if applicable).

- The Participant/Support Cost section of the budget may not exceed the $100,000 total amount allotted to the REU supplement.

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: FY26 CFA SF424RR [Tracking ID#].xlsx

r. Budget Justification

(Required for all University and Industry participants; Not required for NSUF-2 Access Only applications)

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.

If a REU supplement is requested, costs should be justified including itemized student costs.
The REU supplement portion of the award is expected to fall under participant support costs as defined by 2 CFR 200:

> Participant support costs means direct costs that support participants (see definition for Participant in 2 CFR 200.1) and their involvement in a Federal Award such as stipends, subsistence allowances, travel allowances, registration fees, temporary dependent care, and per diem paid directly to or on behalf of participants.

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 required or 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 NOFO Part 2, *Letters of Commitment & Support*.

Save file as: FY26 CFA RR Budget [Tracking ID#].xlsx

s. Subrecipient Budget Form

(Required for University and Industry collaborators; Not required for NSUF-2 Access Only applications)

Budgets for subrecipients, other than DOE 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 $500,000. 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.

Budget for DOE/NNSA Federally Funded Research and Development Center (FFRDC) Contractor
(Required for National Laboratory participants; Not required for NSUF-2 Access Only applications)
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. FWPs can be obtained from respective laboratory financial administrators.

FFRDCs are permitted to propose costs in accordance with their established DOE contracts (e.g., overhead, fees, etc.).

NOTE: If no funds are to be subawarded to the FFRDC, the DOE Field Work Proposal is not required.

Save file as: FY26 CFA Subrecipient Budget [Tracking ID#].xlsx

t. Subrecipient Budget Justification

Applicants must provide a separate budget justification for each subrecipient that is expected to perform work estimated to be more than $500,000. The budget justification must include the same justification information described above.

Note: You may add the name or acronym to the file name to distinguish between institutions (up to 10 letters). Example: “Michigan” or “UM” or Mich”.

Save file as: FY26 CFA Subrecipient Budget Justification [Tracking ID#].pdf

u. Work Proposal for DOE FFRDC

If a DOE FFRDC is to perform a portion of the work, the applicant must provide a DOE work proposal (WP) in accordance with the requirements in DOE Order 412.1A, Work Authorization System, available at: https://www.directives.doe.gov/directives-documents/400-series/0412.1-BOrder-a-chg1-AdmChg.

Save file as: FY26 CFA FFRDC [Tracking ID#].pdf

v. Authorization for Non-DOE or DOE FFRDCs (if applicable)

(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, 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 CINR NOFO.

Save file as: FY26 CFA CO Authorization [Tracking ID#].pdf

w. 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: FY26 CFA CMP [Tracking ID#].pdf

x. Lobbying Activities (Excluding FFRDC Recipients and Subrecipients)

All recipients and subrecipients that have lobbying activities to disclose:
Complete and submit the Disclosure of Lobbying Activities (SF-LLL) available at: https://apply07.grants.gov/apply/forms/sample/SFLLL_2_0-V2.0.pdf to ensure that non-federal funds have not been paid and will not be paid to any person for influencing or attempting to influence any of the following in connection with the application:

- An officer or employee of any federal agency;
- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

Recipients and subrecipients that have no lobbying activities to disclose:
Complete and submit, Certification Regarding Lobbying form (OMB 4040-0013) available at: https://apply07.grants.gov/apply/forms/sample/GG_LobbyingForm-V1.1.pdf.

Save file as: FY26 CFA SF-LLL [Tracking ID#].pdf

y. Transparency of Foreign Connections

Applicants must provide a transparency of foreign connections disclosure and certification as it relates to the proposed recipient and subrecipient(s). Include a separate disclosure for the applicant and each proposed subrecipient.

Disclosure Format: For the convenience of the entity providing the disclosure and certification a template is available at Transparency of Foreign Connections | Department of Energy, however, the entity is not required to use this specific format. If another format is used, the signatory must include the same substantive information, a signature, date, and the certification statement provided at Transparency of Foreign Connections | Department of Energy.
Disclosure exceptions by entity type:

- U.S. National Laboratories and domestic government entities are not required to respond to the Transparency of Foreign Connections disclosure.
- Institutions of higher education are only required to respond to items with an asterisk symbol (*).
- The applicability of disclosure requirements is determined by the entity type. Regardless of whether the applicant is exempt, the subrecipient(s) must provide these disclosures unless the subrecipient is also exempt.

Applicants, regardless of entity type, must provide complete responses for project team members that are not U.S. National Laboratories, domestic government entities, or institutions of higher education.

Questions: Contact rtesinfo@hq.doe.gov

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

Save file as: FY26 CFA TFC [Tracking ID#].pdf

z. Potentially Duplicative Funding Notice

If the applicant or project team member has other active awards of federal funds, the applicant must determine whether the activities of those awards potentially overlap with the activities set forth in its application to this NOFO. 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 NOFO, 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 Grants Officer in writing of the potential duplication and eliminate any inappropriate duplication of funding.

Save file as: FY26 CFA PDFN [Tracking ID#].pdf

aa. 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 file as: FY26 CFA Site Location [Tracking ID#].pdf

C. Funding Restrictions

1. Allowable Costs

All expenditures must be allowable, allocable, and reasonable in accordance with the applicable federal cost principles. Pursuant to 2 CFR 910.352, the cost principles in the Federal Acquisition Regulations (48 CFR 31.2) apply to for-profit entities. The cost principles contained in 2 CFR Part 200, Subpart E apply to all entities other than for-profits. 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.

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 those incurred prior to the effective date of the federal award directly pursuant to the negotiation and in anticipation of the federal award where such costs are necessary for efficient and timely performance of the scope of work. Such costs are allowable only to the extent that they would have been allowable if incurred after the date of the federal award.

Pre-award costs cannot be incurred prior to the Selection Official signing the Selection Statement and Analysis.

Pre-award expenditures are made at the selectee's risk. DOE is not obligated to reimburse costs: (1) in the absence of appropriations; (2) if an award is not made; or (3) if an award is made for a lesser amount than the selectee anticipated.

National Environmental Policy Act (NEPA) Requirements Related to Pre-Award Costs
DOE's decision whether and how to distribute federal funds under this NOFO is subject to NEPA. Applicants should carefully consider and should seek legal counsel or other expert advice before taking any action related to the proposed project that would have an adverse effect on the environment or limit the choice of reasonable alternatives prior to DOE completing the NEPA review process.

DOE does not guarantee or assume any obligation to reimburse pre-award costs incurred prior to receiving written authorization from the Grants Officer. If the applicant elects to undertake activities that DOE determines may have an adverse effect on the environment or limit the choice of reasonable alternatives prior to receiving such written authorization from the Grants Officer, the applicant is doing so at risk of not receiving federal funding for its project and such costs may not be recognized as allowable cost share. Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Grants Officer overrides the requirement to obtain the written authorization from the Grants Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives. Likewise, if an application is selected for

negotiation of award, and the recipient elects to undertake activities that are not authorized for federal funding by the Grants Officer in advance of DOE completing a NEPA review, the recipient is doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

3. Performance of Work in the United States (Foreign Work Waiver)

All work performed under awards issued under this NOFO must be performed in the U.S. The recipient must flow down this requirement to its subrecipients.

Failure to Comply

If the recipient fails to comply with the Performance of Work in the United States requirement, DOE may deny reimbursement for the work conducted outside the United States and such costs may not be recognized as allowable recipient cost share. The recipient is responsible should any work under this award be performed outside the United States, absent a waiver, regardless of whether the work is performed by the recipient, subrecipients, contractors or other project partners.

Foreign Work Waiver

To seek a foreign work waiver, the applicant must submit a written waiver request to DOE. Refer to Performance of Work in the United States (Foreign Work Waiver) which lists the information that must be included in a request for a foreign work waiver.

4. Foreign Travel

Please refer to *NOFO Part 1, Application Content and Form—Funding Restrictions* to see if foreign travel is allowable under this NOFO.

> If allowable per NOFO Part 1 and if international travel is proposed for your project, **foreign travel costs are allowable only with the written approval of the Grants Officer assigned to the award prior to any incurred costs.** If your proposal is selected for negotiations, please inform the DOE project team of any planned international travel that may occur during the course of the project.

In addition to the GO approval above, a foreign work waiver is also required in the following circumstances:

- For travel to any country, submit a foreign work waiver for foreign travel conducted in connection with the scope of the project where the purpose of the travel is a not a conference, scholarly workshop, or symposium.
- If the purpose of the travel is a conference, scholarly workshop, or symposium, the applicant is only required to submit a foreign work waiver if the travel is to a foreign country of concern (China, Russia, North Korea, Iran).
- See *Performance of Work in the United States (Foreign Work Waiver)* above for details.

All planned international travel must be essential to the successful completion of a task outlined in your proposal.

All international travel must comply with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. § 40118), commonly referred to as the "Fly America Act," and implementing regulations at 41 CFR 301-10.131 through 301-10.143. The law and regulations require air transport of people or property to, from, between, or within a country other than the United States, the cost of which is supported under this award, to be performed by or under a cost-sharing arrangement with a United States flag carrier, if service is available.

5. Lobbying

Recipients and subrecipients may not use any federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Recipients and subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (grants.gov/forms/forms-repository/sf-424-individual-family) to ensure that non-federal funds have not been paid and will not be paid to any person for influencing or attempting to influence any of the following in connection with the application:

- An officer or employee of any federal agency;
- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

6. Equipment and Supplies

All equipment and products purchased with funds made available under this NOFO should be American-made, to the greatest extent practicable. This requirement does not apply to used or leased equipment. This requirement does not supersede any other statutory requirement in the NOFO (e.g., Buy America Requirements for Infrastructure Projects).

7. Davis-Bacon Act Requirements

Refer to *NOFO Part 1, Application Content and Form—Funding Restrictions* to determine if the Davis-Bacon Act requirements are applicable (if "Davis-Bacon Act Requirements" is not listed in the NOFO Part 1, *Applicable Funding Restrictions* table, it is not required).

For projects awarded under NOFOs that will be funded under Division D of BIL, per Section 41101 of that law, all laborers and mechanics employed by the recipient, subrecipients, contractors, or subcontractors in the performance of construction, alteration, or repair work funded in whole or in part under the applicable NOFO Part 1 shall be paid wages at rates not less than those prevailing on similar projects in the locality, as determined by the Secretary of Labor in accordance with Subchapter IV of Chapter 31 of Title 40, U.S. Code commonly referred to as the Davis-Bacon Act (DBA).

Applicants shall provide written assurance acknowledging the DBA requirements above, confirming that the laborers and mechanics performing construction, alteration, or repair work on projects funded in whole or in part by awards made as a result of this NOFO are paid or will be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by Subchapter IV of Chapter 31 of Title 40, U.S. Code (Davis-Bacon Act).

Applicants acknowledge that they will comply with all the Davis-Bacon Act requirements, including but not limited to:

- Ensuring that the wage determination(s) and appropriate Davis-Bacon clauses and requirements are flowed down to and incorporated into any applicable subrecipient or contract awards;
- Ensuring that if wage determination(s) and appropriate Davis-Bacon clauses and requirements are improperly omitted from subrecipient or contract awards, the applicable wage determination(s) and clauses are retroactively incorporated to the start of performance;
- Being responsible for compliance by any subrecipient or contractor with the Davis-Bacon labor standards;
- Receiving and reviewing certified weekly payrolls submitted by all subrecipients or contractors for accuracy and to identify potential compliance issues;
- Maintaining original certified weekly payrolls for three years after the completion of the project

and making those payrolls available to DOE or the U.S. Department of Labor (DOL) upon request, as required by 29 CFR 5.6(a)(2);

- Conducting payroll and job-site reviews for construction work, including interviews with employees, with such frequency as may be necessary to assure compliance by its subrecipients or contractors and as requested or directed by DOE;
- Cooperating with any authorized representative of DOL in its inspection of records, interviews with employees, and other actions undertaken as part of a DOL investigation;
- Posting in a prominent and accessible place the wage determination(s) and DOL Publication: WH-1321, Notice to Employees Working on Federal or Federally Assisted Construction Projects;
- Notifying the Grants Officer of all labor standards issues, including all complaints regarding incorrect payment of prevailing wages and/or fringe benefits, received from recipient, subrecipient, contractor, or subcontractor employees; significant labor standards violations, as defined in 29 CFR 5.7; disputes concerning labor standards pursuant to 29 CFR Parts 4, 6, and 8 and as defined in FAR 52.222-14; disputed labor standards determinations; DOL investigations; or legal or judicial proceedings related to the labor standards under this award, subrecipient award, contract or subcontract; and
- Preparing and submitting to the Grants Officer, the Office of Management and Budget Control Number 1910-5165, Davis Bacon Semi-Annual Labor Compliance Report, by April 21 and October 21 of each year.

Recipients will also be required to undergo Davis-Bacon Act compliance training and maintain competency in Davis-Bacon Act compliance. The Grants Officer will notify the recipient of any DOE-sponsored Davis-Bacon Act compliance trainings. DOL offers free Prevailing Wage Seminars several times a year that meet this requirement, at https://www.dol.gov/agencies/whd/government-contracts/construction/seminars/events.

For additional guidance on how to comply with the Davis-Bacon provisions and clauses, see https://www.dol.gov/agencies/whd/government-contracts/construction and https://www.dol.gov/agencies/whd/government-contracts/protections-for-workers-in-construction.

Recipients must ensure the timely submission of weekly certified payrolls as part of its compliance with the Davis-Bacon Act.

DOE has contracted with LCPtracker, a third-party DBA electronic payroll compliance software application, and recipients use of LCPtracker is mandatory absent a grant of a waiver. A waiver for the use of LCPtracker may be granted to a particular recipient if they are unable or limited in their ability to use or access the system. LCPtracker allows for certified payroll reports and workforce data to be uploaded electronically, 24 hours a day, 7 days per week and currently partners with several commercially available payroll systems. If a recipient uses a different payroll system, LCPtracker provides a free, spreadsheet template they can use to map out their payroll file, which would allow them to upload their employee and payroll data into the system. LCPtracker validation system checks payrolls for federal Davis-Bacon prevailing wage requirements by flagging mathematical errors or omission discrepancies for the recipient to review on a report. Examples include base hourly rate, total hourly rate, overtime, doubletime, apprentice approval, and fringe benefit contributions.

Additionally, LCPtracker utilizes industry standard eSignature technology, thus allowing recipients to electronically sign payroll reports versus using a wet signature. Individual program offices will coordinate with recipients on access and training.

For more information, visit Davis-Bacon Act Requirements for Recipients of Bipartisan Infrastructure Law Funding.

V. Submission Requirements and Deadlines

Please refer to the NOFO Part 1, *Application Content and Form—Application Content Requirements* for all submission requirements and instructions including the content and form for each submission and deadlines.

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VI. Application Review Information

Please refer to the NOFO Part 1, *Application Review Information—Review Criteria* for specific compliance and technical criteria. The following describes the DOE evaluation and selection process that is applicable to all NOFOs.

A. Standard Evaluation and Selection Processes

1. Overview

The evaluation process consists of multiple phases; each includes an initial eligibility review, relevancy review, and a thorough technical review. Rigorous technical reviews of eligible submissions are conducted by reviewers that are experts in the subject matter of the NOFO. Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors and risk reviews, in determining which applications to select.

2. Pre-Selection Clarification

DOE may determine that pre-selection clarifications are necessary from one or more applicants. These pre-selection clarifications will solely be for the purposes of clarifying the application. The pre-selection clarifications may occur before, during or after the merit review evaluation process. Information provided by an applicant that is not necessary to address the pre-selection clarification question will not be reviewed or considered. Typically, a pre-selection clarification will be carried out through either written responses to DOE's written clarification questions or video or conference calls with DOE representatives.

The information provided by applicants to DOE through pre-selection clarifications is incorporated in their applications and contributes to the merit review evaluation and DOE's selection decisions. If DOE contacts an applicant for pre-selection clarification purposes, it does not signify that the applicant has been selected for negotiation of award or that the applicant is among the top ranked applications.

DOE will not reimburse applicants for expenses relating to the pre-selection clarifications, nor will these costs be eligible for reimbursement as pre-award costs.

3. Recipient Responsibility and Qualifications

Prior to making a federal award with a total amount of federal share greater than the simplified acquisition threshold, DOE is required to review and consider any responsibility and qualification information about the applicant that is in the entity information domain in SAM.gov (see 41 U.S.C. § 2313).

The applicant, at its option, may review information in the entity information domain in SAM.gov and comment on any information about itself that a federal awarding agency previously entered and is currently in the entity information domain in SAM.gov.

DOE will consider any written comments by the applicant, in addition to the other information in the entity information domain in SAM.gov, 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 200.206.

4. Due Diligence Review for Research, Technology and Economic Security

All applications submitted to DOE are subject to a due diligence review.

As DOE invests in critical infrastructure and funds critical and emerging technology areas,[1] DOE considers possible threats to United States research, technology, and economic security from undue foreign government influence when evaluating risk. As part of the research, technology, and economic security risk review, DOE may contact the applicant and/or proposed project team members for additional information to inform the review. This risk review is conducted separately from the technical merit review.

All project participants, which for purposes of this term includes individuals participating in the project, are subject to RTES due diligence reviews. The due diligence review of covered individuals includes but is not limited to the review of resumes/biosketches, disclosures, and certifications, as required in the NOFO. DOE reserves the right to require resumes/biosketches, disclosures, and certifications for project participants not defined as covered individuals. The Applicant need not submit any additional information on non-covered individuals, unless requested by DOE. The volume and type of information collected may depend on various factors associated with the award.

Note this review is separate and distinct from DOE Order 142.3B "Unclassified Foreign National Access Program."

5. Evaluation and Administration by Non-Federal Personnel

In conducting the merit review evaluation, the Go/No-Go Reviews, and Peer Reviews, the government may seek the advice of qualified non-federal personnel as reviewers. The government may also use non-federal personnel to conduct routine, nondiscretionary administrative activities, including DOE contractors. The applicant, by submitting its application, consents to the use of non-federal reviewers/administrators. Non-federal reviewers must sign conflict of interest (COI) and non-disclosure acknowledgements (NDA) prior to reviewing an application. Non-federal personnel conducting administrative activities must sign an NDA.

6. Selection

The Selection Official may consider the technical merit, the Federal Consensus Board's recommendations, program policy factors, risk reviews, and the amount of funds available in arriving at selections for this NOFO.

7. R&D and NSUF Pre-Applications

DOE will evaluate Pre-Application projects against the technical criteria and relevance to the NE mission described in this CINR NOFO. This evaluation process will produce a list of recommended projects for each topic area. DOE will consider the overall evaluation results and program policy factors to select a final set of invited projects to provide a Full Application.

[1] See Critical and Emerging Technologies List Update (whitehouse.gov).

NOTE: Applicants not requesting NSUF access, who do not receive a formal invitation from DOE to submit Full Applications in response to the Pre-Application review process may still do so at their own risk. There is no guarantee uninvited Full Applications will receive a full review; however, all Full Applications received will be re-reviewed for relevance to the NE mission. Only uninvited Full Applications determined to be relevant to the NE mission will receive a technical peer review during the evaluation phase for Full Applications.

NOTE: Applicants requesting NSUF access who are not specifically invited by DOE to submit Full Applications will NOT be allowed to submit Full Applications. Due to resource limitations within the NSUF, the feasibility review, which is a critical element of NSUF access, will continue only for applications that are specifically invited. An uninvited NSUF application without a complete NSUF feasibility review is incomplete and cannot be re-reviewed for NE mission relevancy.

8. R&D and NSUF Full Applications

Multiple peer reviewers will independently evaluate the applications in accordance with the technical review evaluation criteria described in this CINR NOFO. Also, DOE will complete a Relevancy Criteria Review in accordance with the criteria described above. DOE will consider the overall evaluation results and subjective programmatic factors to ultimately recommend a final set of applications for approval by the Selection Official.

9. IRP Full 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 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.

VII. Selection and Award Notices

DOE anticipates notifying applicants selected for negotiation of award and negotiating awards by the dates provided on the NOFO Part 1, *Basic Information—Key Dates*.

A. Selection Notices

1. Ineligible Submissions

Ineligible concept papers, if required, and applications will not be further reviewed or considered for award. The Grants Officer will send a notification letter by email to the technical and administrative points of contact designated by the applicant. The notification letter will state the basis upon which the concept paper or the application is ineligible and not considered for further review.

2. Application Notifications

DOE will notify applicants of its determination via a notification letter by email to the technical and administrative points of contact designated by the applicant in the submitted application. The notification letter will inform the applicant whether its application was selected for award negotiations. Alternatively, DOE may notify one or more applicants that a final selection determination on particular applications will be made at a later date, subject to the availability of funds or other factors.

3. Applicants Selected for Award Negotiations

DOE may stagger its selection determinations. As a result, some applicants may receive their notification letter in advance of other applicants. Successful applicants will receive written notification that they have been selected for award negotiations including estimated award negotiation dates. Receipt of a notification letter selecting an application for award negotiations does not authorize the applicant to commence performance of the project. If an application is selected for award negotiations, it is not a commitment by DOE to issue an award nor is it a guarantee of federal government funding. Applicants do not receive an award until award negotiations are complete and the Grants Officer executes the funding agreement, accessible by the recipient in FedConnect.

The award negotiation process can take a minimum of 60 days up to 180 days depending on the complexity of the project and responsiveness of the selectee among other factors. Applicants must designate a primary and a backup point-of-contact on the application with whom DOE will communicate to conduct award negotiations.

The applicant must be responsive during award negotiations by providing requested documentation, including post-selection documentation, and meet the negotiation deadlines. If the applicant fails to do so or if award negotiations are otherwise unsuccessful, DOE will cancel the award negotiations and rescind the Selection. DOE reserves the right to terminate award negotiations at any time for any reason.

Please refer to the Pre-Award Costs section above for guidance on pre-award costs.

4. Alternate Selections

In some instances, an applicant may receive a notification that its application was not selected for award and DOE designated the application to be an alternate. As an alternate, DOE may consider the

application for federal funding in the future. A notification letter stating the application is designated as an alternate does not authorize the applicant to commence performance of the project. DOE may ultimately determine to select or not select the application for award negotiations.

5. Applicants Not Selected for Award Negotiations

DOE shall promptly notify in writing each applicant whose application has not been selected for award negotiation or whose application cannot be funded because of the unavailability of appropriated funds.

B. Post-Selection Information Requests

To reduce burden in the application process, DOE has instituted Post-Selection Information Requests and Submissions procedures. These procedures allow certain elements of an application to be submitted later in the application process, either prior to merit review or after merit review when the application is under consideration for funding.

Applicants will be notified (primarily by e-mail) when Post-Selection Information is needed. This notification is not a Notice of Award, nor should it be construed to be an indicator of possible funding. Applicants should only submit this information when requested. The applicant will be notified on what documents and materials to submit, the format required and where and when to submit.

1. Example Information Requests

The following is a list of examples of information that may be required to complete award negotiations:

- Personnel proposed to work on the project and collaborating organizations
- Participants and Collaborating Organizations;
- Current and Pending Support;
- Other budget information;
- Indirect cost information;
- Letters of Commitment from third parties contributing to cost share, if applicable;
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5);
- Information for the DOE Office of Civil Rights to process assurance reviews under 10 CFR 1040;
- Environmental Questionnaire;
- Lobbying disclosure;
- Representation of Limited Rights Data and Restricted Software, if applicable;
- For construction projects: information related to Davis-Bacon Act requirements; Construction Workforce Continuity Plan; Operations Workforce Continuity Plan.

2. Entity Risk Assessment

Pursuant to 2 CFR 200.206, DOE may conduct an additional review of the risk posed by applications submitted under the applicable NOFO Part 1. This risk assessment may consider:

- Financial stability;
- Quality of management systems and ability to meet the management standards prescribed in 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910;
- History of performance;
- Audit reports and findings; and

- The applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on recipients or subrecipients.

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

Depending on the severity of the findings and whether the findings were resolved, DOE may elect not to fund the applicant.

In addition to this review, DOE must comply with the guidelines on government-wide suspension and debarment in 2 CFR Part 180 and must require recipients or subrecipients to comply with these provisions. These provisions restrict federal awards, subawards and contracts with certain parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in federal programs or activities.

3. Environmental Review in Accordance with National Environmental Policy Act (NEPA)

DOE's decision whether and how to distribute federal funds under this NOFO is subject to NEPA (42 U.S.C. § 4321, *et seq.*). DOE will determine whether NEPA applies, in accordance with Section 2.1 of DOE's NEPA implementing procedures published on June 30, 2025. DOE NEPA Implementing Procedures (June 2025) | Department of Energy

NEPA requires federal agencies to consider the potential environmental impacts of their proposed actions in agency decision making. 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 applicants selected for award negotiations and recipients of 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 documents must be prepared to complete the NEPA review process, the recipient may be required to prepare the documents and the costs to prepare the necessary documents may be included as part of the project costs. DOE will independently evaluate the environmental document and will take responsibility for the contents, including ensuring the professional integrity of the discussion and analysis, as required by NEPA.

National Historic Preservation Act (NHPA)

DOE must comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA) prior to deciding whether or how to distribute federal funds. Section 106 requires DOE to identify and consider adverse effects from the proposed project to historic properties that are listed in or eligible for listing in the National Register of Historic Places and consult with the State Historic Preservation Office(s), Indian Tribe(s), local government(s), and others with economic or legal relation to the proposed project or affected properties, as appropriate, about historic properties and potential adverse effects to them. DOE may perform a NHPA review under the umbrella of its NEPA review and will require applicants to assist in this review and consider impacts to historic, Tribal, and cultural resources.

4. Flood Resilience

Executive Order 11988, Floodplain Management, requires agencies engage in a decision-making process to evaluate the potential effects of any action it may take in a floodplain and to avoid development in a floodplain to the extent possible. Selectees will be required to indicate whether the proposed project location(s) is within a floodplain, how the floodplain was defined, and how the project's design has been modified to reduce the risk of flood loss and minimize the impact of floods on human safety, health, and welfare.

5. Trafficking in Persons

Awards under this NOFO will be subject to the requirements at 2 CFR Part 175, Award Term for Trafficking in Persons, including the compliance plan and certification requirements applicable if the estimated value of services required to be performed under the grant or cooperative agreement outside the United States exceeds $500,000.

6. Construction Workforce Continuity Plan

Required for awards inclusive of any construction project with total construction costs greater than $35M and where DOE is contributing 10 percent or more of the project amount, or as otherwise selected by DOE.

If selected for award negotiations, within 30 days of the notification of selection for award negotiations, the selectee must submit a Construction Workforce Continuity Plan. A Workforce Continuity Plan template is provided at Workforce Continuity Plan - Construction | Department of Energy with the intent to reduce the administrative burden by promoting the use of common formats.

7. Operations Workforce Continuity Plan

Required for awards inclusive of any project that will have more than 100 employees in operation, including contract workers who are not W2 employees, and where DOE is contributing 10 percent or more of the project amount, or as otherwise selected by DOE.

If selected for award negotiations, within 30 days of the notification of selection for award negotiations, the selectee must submit an Operations Workforce Continuity Plan. A Workforce Continuity Plan template is provided at Workforce Continuity Plan - Operations | Department of Energy with the intent to reduce the administrative burden by promoting the use of common formats.

C. Award Notices

Upon successful completion of award negotiations, the DOE Grants Officer will approve the award, and the recipient will then receive notification of award and can access it in the FedConnect system. Selectees must be registered in FedConnect to receive the final award package after successful completion of award negotiations.

Registering with FedConnect® is fast, easy, and free. Only individuals who are designated as Points of Contact in SAM.gov can create a new company account.

- **What is it?** It's how recipient receive their legally executed award package.
- The SAM Unique Entity Identifier Number (UEI) must be obtained before this registration can be initiated.

- Review the FedConnect Ready, Set, Go! Guide at https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf.
- **Duration** to complete: can take two to three days.
- **Registration Link:** FedConnect website: FedConnect - Gateway to Government Opportunities
- **HELP**: Welcome to the FedConnect® Online Help

Electronic Authorization of Applications and Award Documents

Submission of an application and supplemental information under the NOFO Part 1 through electronic systems used by the DOE, including NEUP.gov and FedConnect, constitutes the authorized representative's approval and electronic signature.

VIII. Award Administration Information

A. Post-Award Requirements and Administration

Note: Please review this document prior to applying.

DOE requires all award recipients to follow and accept requirements governed by laws and policies – both federal government-wide and DOE or program specific. These post-award requirements include: all National and Administrative Policy Requirements; financial assistance general Certifications and Representations; Build America, Buy America requirements; Davis-Bacon Act requirements; Risk-Based Review of Project Participants; Performance of Work in the U.S. (Foreign Work Waiver); Bipartisan Infrastructure Law-Specific Requirements; Fraud, Waste and Abuse requirements; Safety, Security, and Regulatory requirements; and Environmental Review in Accordance with National Environmental Policy Act requirements.

Recipients of an award made under DOE NOFOs must comply with requirements of all applicable federal, state, and local laws, regulations, DOE policy and guidance, instructions in this NOFO, and the award terms and conditions. Recipients must require subrecipients' compliance with all applicable requirements. Reporting requirements are identified on the Federal Assistance Reporting Checklist, attached to the award agreement.

All DOE award recipients must adhere to the following:

1. Award Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910.

2. Subaward and Executive Reporting

Additional administrative requirements necessary for DOE grants and cooperative agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR Part 170. Recipients must register with the FFATA Subaward Reporting System database and report the required data on their first tier subrecipients. Recipients must report the executive compensation for their own executives as part of their registration profile in SAM.

3. National Policy Requirements

The National Policy Assurances that are incorporated as a term and condition of award are located at: http://www.nsf.gov/awards/managing/rtc.jsp.

4. Applicant Representations and Certifications

Lobbying Restrictions

By accepting funds under this award, the recipient 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.

Corporate Felony Conviction and Federal Tax Liability Representations
In submitting an application to a NOFO, the applicant represents that:

a. It is **not** a corporation that has been convicted of a felony criminal violation under any federal law within the preceding 24 months; and

b. 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, a corporation is any for-profit or nonprofit entity that has filed articles of incorporation in any of the 50 states, the District of Columbia, or the various territories of the U.S. [but not foreign corporations].

Nondisclosure and Confidentiality Agreements Representations
In submitting an application to a NOFO the applicant represents that:

a. 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 contactors 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.

b. 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:

''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.''

(1) The limitation above shall not contravene requirements applicable to Standard Form 312 Classified Information Nondisclosure Agreement (https://www.gsa.gov/system/files/2024-06/SF312-23.pdf), Form 4414 Sensitive Compartmented Information Disclosure Agreement (https://fas.org/spg.othergov/intel/sf4414.pdf), or any other form issued by a federal department or agency governing the nondisclosure of classified information.

(2) Notwithstanding the provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the U.S. government, may contain provisions

appropriate to the 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 during 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 U.S. Department of Justice, that are essential to reporting a substantial violation of law.

5. Statement of Federal Stewardship

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

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

6. Uniform Commercial Code (UCC) Financing Statements

Per 2 CFR 910.360 (Real Property and Equipment) when a piece of equipment is purchased by a for-profit recipient or subrecipient with federal funds, and when the federal share of the financial assistance agreement is more than $1 million the recipient or subrecipient must:

Properly record, and consent to the Department's ability to properly record if the recipient fails to do so, UCC financing statement(s) for all equipment in excess of $10,000 purchased with project funds. These financing statement(s) must be approved in writing by the Grants Officer prior to the recording, and they shall provide notice that the recipient's title to all equipment (not real property) purchased with federal funds under the financial assistance agreement is conditional pursuant to the terms of this section, and that the government retains an undivided reversionary interest in the equipment. The UCC financing statement(s) must be filed before the Grants Officer may reimburse the recipient for the federal share of the equipment unless otherwise provided for in the relevant financial assistance agreement. The recipient shall further make any amendments to the financing statements or additional recordings, including appropriate continuation statements, as necessary or as the Grants Officer may direct.

7. Interim Conflict of Interest Policy for Financial Assistance

The DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy)[2] is applicable to all recipients or subrecipients applying for, or that receive, DOE funding by means of a financial assistance award (e.g., a grant or cooperative 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. The term "Investigator" means the PI and any other person, regardless of title or position, who is responsible for the purpose, design, conduct, or reporting of a project funded by DOE or proposed for funding by DOE. Recipients must flow down the requirements of the interim COI Policy to any subrecipient. Further, for DOE funded projects, the recipient must include all financial conflicts of interest (FCOI) (i.e., managed and unmanaged/unmanageable) in its initial and ongoing FCOI reports.

It is understood that recipients or subrecipients receiving DOE financial assistance awards will need sufficient time to come into full compliance with DOE's interim COI Policy. To provide some flexibility, DOE allows for a staggered implementation. Specifically, prior to award, applicants selected for award negotiations must: ensure all Investigators complete their significant financial disclosures; review the disclosures; determine whether a FCOI exists; develop and implement a management plan for FCOIs; and provide DOE with an initial FCOI report that includes all FCOIs (i.e., managed and unmanaged/unmanageable). Recipients will have 180 days from the date of the award to come into full

[2] DOE's interim COI Policy can be found at https://www.energy.gov/management/department-energy-interim-conflict-interest-policy-requirements-financial-assistance.

compliance with the other requirements set forth in DOE's interim COI Policy. Prior to award, the applicant must certify that it is, or will be within 180 days of the award, compliant with all requirements in the COI Policy.

8. Whistleblower Protections

As provided in 2 CFR 200.217, an employee of a recipient or subrecipient must not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing information that the employee reasonably believes is evidence of gross mismanagement of a federal contract or grant, a gross waste of federal funds, an abuse of authority relating to a federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal contract (including the competition for or negotiation of a contract) or grant. The recipient and subrecipient must inform their employees in writing of employee whistleblower rights and protections.

9. Fraud, Waste, and Abuse

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

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

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

> An Applicant, Recipient, or Subrecipient of a federal award must promptly disclose whenever, in connection with the federal award (including any activities or subawards thereunder), it has credible evidence of the commission of a violation of federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the U.S. Code or a violation of the civil False Claims Act (31 U.S.C. 3729–3733). The disclosure must be made in writing to the federal agency, the agency's Office of Inspector General, and pass-through entity (if applicable). Recipients and subrecipients are also required to report matters related to recipient integrity and performance in accordance with Appendix XII of this part. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.339. (See also 2 CFR part 180, 31 U.S.C. § 3321, and 41 U.S.C. § 2313.) [85 FR 49539, Aug. 13, 2020]

Applicants/recipients and subrecipients (if applicable) are encouraged to allocate sufficient costs in the project budget to cover the costs associated for personnel and data infrastructure needs to support performance management and program evaluation needs, including but not limited to independent program and project audits to mitigate risks for fraud, waste, and abuse.

10. Participants and Collaborating Organizations

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

of changes to the personnel and collaborating organizations and submit updated information during the life of the award.

11. Current and Pending Support

Throughout the life of the award, the recipient has an ongoing responsibility to submit: 1) current and pending support disclosure statements and resumes/biosketches for any new covered individuals, and 2) updated disclosures if there are changes to the current and pending support or resume/biosketch previously submitted to DOE. Also see the Current and Pending Support information in the Application Contents Requirements section above.

12. Prohibition Related to Malign Foreign Talent Recruitment Programs

Prohibition

Individuals participating in a Malign Foreign Talent Recruitment Program are prohibited from participating in this award.

Should an award result from this NOFO, the recipient must exercise ongoing due diligence to reasonably ensure that no such individuals participating on the DOE-funded project are participating in a *Malign Foreign Talent Recruitment Program*. 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 malign foreign talent recruitment program. DOE may modify and add requirements related to this prohibition to the extent required by law.

Required Certifications

a. *Each covered individual* must certify that they are not party to a Malign Foreign Talent Recruitment Program.
b. The applicant and the subrecipients must certify that the covered individuals in their respective employment have been made aware of the Malign Foreign Talent Recruitment Program prohibition and have complied with their certification responsibilities identified in a.

Non-Discrimination

DOE will ensure that the Malign Foreign Talent Recruitment Program Prohibition is carried out in a manner that does not target, stigmatize, or discriminate against individuals on the basis of race, ethnicity, or national origin, consistent with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.).

Definitions

Malign Foreign Talent Recruitment Program, as defined in P.L. 117-167, Section 10638(4):

A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or

affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual—

i. engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a U.S. entity or developed with a federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
ii. being required to recruit trainees or researchers to enroll in such program, position, or activity;
iii. establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a federal research and development award;
iv. being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
v. through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a federal research and development award;
vi. being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
vii. being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the federal research and development award;
viii. being required to not disclose to the federal research agency or employing institution the participation of such individual in such program, position, or activity; or
ix. having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the federal research and development award; and

B) a program that is sponsored by—
   i. a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
   ii. an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; [1] Public Law 115–232); or
   iii. a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; [1] Public Law 115–232).

Consistent with applicable law (42 U.S.C. 19232), this provision does not prohibit, unless such activities are funded, organized, or managed by an academic institution or a foreign talent recruitment program on the lists developed under paragraphs (8) and (9) of section 1286(c) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115–232)—

A) making scholarly presentations and publishing written materials regarding scientific information not otherwise controlled under current law;

B) participation in international conferences or other international exchanges, research projects or programs that involve open and reciprocal exchange of scientific information, and which are aimed at advancing international scientific understanding and not otherwise controlled under current law;

C) advising a foreign student enrolled at an institution of higher education or writing a recommendation for such a student, at such student's request; and

D) other international activities determined appropriate by the federal research agency head or designee.

13. Foreign Collaboration Considerations

For **new** collaborations with foreign entities, organizations, and governments, the recipient will be required to provide DOE with advanced written notification of any potential collaboration with foreign entities, organizations, 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, organization, or government regarding the potential collaboration or negotiating the terms of any potential agreement.

For **existing** collaborations with foreign entities, organizations, and governments, the recipient will be required to provide DOE with a written list of all existing foreign collaborations in which it has entered in connection with its DOE-funded award scope.
Description of collaborations that should be reported:

- In general, a collaboration will involve some provision of a thing of value to, or from, the recipient.
- A thing of value includes but may not be limited to all resources made available to, or from, the recipient in support of and/or related to the DOE award, regardless of whether 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.

14. U.S. Manufacturing Commitments

Refer to NOFO Part 1, *Award Administration Information—Post-Award Requirements* to determine if U.S. Manufacturing Commitments are applicable (if "U.S. Manufacturing Commitments" is not listed in the *Applicable Post-Award Requirements and Administration* table, it is not required). If applicable, the following applies:

A primary objective of DOE's multi-billion-dollar research, development, and demonstration investments is to cultivate new research and development ecosystems, manufacturing capabilities, and supply chains for and by U.S. industry and labor. Therefore, in exchange for receiving taxpayer dollars to support an

applicant's project, the applicant/recipient and any subrecipient and contractor must agree to a U.S. Competitiveness provision requiring that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the U.S. unless the applicant/recipient can show to the satisfaction of DOE that it is not commercially feasible. Award terms, including the specific U.S. Competitiveness Provision applicable to the various types of recipients and projects, are available at https://www.energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards.

Please note that a subject invention is any invention conceived or first actually reduced to practice in performance of work under an award. An invention is any invention or discovery which is or may be patentable. The recipient includes any awardee, recipient, subawardee, or subrecipient.

As noted in the U.S. Competitiveness Provision, if an entity cannot meet the requirements of the U.S. Competitiveness Provision, the entity may request a modification or waiver of the U.S. Competitiveness Provision. For example, the entity may propose modifying the language of the U.S. Competitiveness Provision in order to change the scope of the requirements or to provide more specifics on the application of the requirements for a particular technology. As another example, the entity may request that the U.S. Competitiveness Provision be waived in lieu of a net benefits statement or U.S. manufacturing plan. The statement or plan would contain specific and enforceable commitments that would be beneficial to the U.S. economy and competitiveness. Examples of such commitments could include manufacturing specific products in the U.S., making a specific investment in a new or existing U.S. manufacturing facility, keeping certain activities based in the U.S. or supporting a certain number of jobs in the U.S. related to the technology. DOE may, in its sole discretion, determine that the proposed modification or waiver promotes commercialization and provides substantial U.S. economic benefits, and grant the request. If granted, DOE will modify the award terms and conditions for the requesting entity accordingly.

More information and guidance on the waiver and modification request process can be found in the DOE Financial Assistance Letter on this topic, available at https://www.energy.gov/management/pf-2022-09-fal-2022-01-implementation-doe-determination-exceptional-circumstances-under. Additional information on DOE's Commitment to Domestic Manufacturing for DOE-funded R&D is available at https://www.energy.gov/gc/us-manufacturing.

The U.S. Competitiveness Provision is implemented by DOE pursuant to a Determination of Exceptional Circumstances (DEC) under the Bayh-Dole Act and DOE Patent Waivers. Please refer to the Title to Subject Inventions section below for more information on the DEC and DOE Patent Waivers section below for more information on the DEC and DOE Patent Waivers.

15. Subject Invention Utilization Reporting

To ensure that recipients, subrecipients, and contractors holding title to subject inventions are taking the appropriate steps to commercialize subject inventions, DOE requires that each recipient, subrecipient, and contractor holding title to a subject invention submit annual reports to DOE on the utilization of the subject invention and efforts made by recipient or its licensees or assignees to stimulate such utilization. The reports must include information regarding the status of development, date of first commercial sale or use, gross royalties received by the recipient, and such other data and information as DOE may specify.

16. 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.

17. Technology Protection Plan

The Recipient must submit a Technology Protection Plan within 60 days of award setting out the Recipient's policies and procedures for identifying, accessing, handling, controlling, and releasing the following under this Award: (1) Recipient's proprietary information, including non-public technical information, trade secrets and other confidential business information, including but not limited to information, know-how, methods or processes that give the Recipient a competitive advantage in the marketplace; (2) information that is subject to U.S. export control laws or regulations; (3) information that has been designated as classified or controlled unclassified information (CUI) by DOE; (4) any other information designated by DOE as sensitive throughout the period of performance. The Recipient must meet the stated objectives set forth in its Technology Protection Plan. The Recipient must notify the Department of any revisions to the Technology Protection Plan or the proposed security approach. A report on the Recipient's progress toward meeting the objectives and milestones set forth in the Technology Protection Plan must be included in any continuation application. The Technology Protection Plan and any revisions to the plan and all related deliverables must be emailed securely to the point of contact designated by DOE. Any DOE and/or National Laboratory review comments or feedback provided to the Recipient does not constitute an endorsement or approval of any specific elements within the Technology Protection Plan or the proposed security approach. Therefore, such feedback should not be referenced or used in marketing or promotional materials.

18. Data Management and Sharing Plan

A Data Management and Sharing Plan (DMSP) will be required within 90 days of award. Please refer to the NOFO Part 1, *Award Administration Information—Post-Award Requirements and Administration*.

The DMP must provide a plan for making all research data displayed in publications resulting from the proposed work digitally accessible at the time of publications. A DMP explains how, when appropriate, data generated in the course of the work performed under a DOE award will be shared and preserved to validate the results of the proposed work or how the results could be validated if the data is not shared or preserved. The Data Management and Sharing Plan:

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. 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.

The DOE Public Access Plan located at https://www.energy.gov/sites/prod/files/2014/08/f18/DOE_Public_Access%20Plan_FINAL.pdf provides additional guidance.

The DMP submitted with the application must be consistent with the planned intellectual property (IP) approach for the award.

If selected for negotiation of an award, the IP provisions included in the award will govern rights provided to the Government regarding IP such as the Government-purpose license, march-in rights, and certain U.S. manufacturing requirements that may be implemented.

19. Conference Spending

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

20. Organization for Economic Cooperation and Development (OECD) Nuclear Energy Agency (NEA) Nuclear Education, Skills, and Technology (NEST) Program

Incremental funding is potentially available through participation in the Department of Energy's interactions with the Organization for Economic Cooperation and Development (OECD) Nuclear Energy Agency (NEA) Nuclear Education, Skills and Technology (NEST) program for the following topic areas:

- Topic Area 1: Advanced Reactor Development and Plant Optimization
- Topic Area 10: Measuring, Monitoring, and Controls
- IRP-1: Grand Challenge IRP – Accelerating Advanced Reactor Development and Deployment

NEST ties together university research projects across multiple countries to provide students a fuller professional experience as they pursue their degrees. NEST funds are provided to allow travel for students to interact with colleagues in other NEST countries in accordance with NEST program rules. Applications submitted to this Topic Area do not require NEST participation. Access to NEST funds do require investigators to agree to participate in NEST. Investigators must clearly indicate in their application if they are willing to join as a NEST project or not. For more information visit: Nuclear Energy Agency (NEA) - Nuclear Education, Skills and Technology (NEST) Framework (oecd-nea.org).

NOTE: Anticipated budget requirements for NEST participation must not be included in an application submitted to this topic area. NEST funding received by successful applicants will not be included or tracked as part of the overall project budget and not subject to inclusion in project financial reporting. Additionally, participation in NEST will not be a factor considered in the review of applications.

21. Cost Share Payment

DOE requires recipients to contribute the cost share amount incrementally over the life of the award. The terms and conditions of the award will specify the recipient's cost share interval, such as by billing period or on a budget period basis. The recipient's cost share for each interval must always reflect the overall cost share ratio negotiated by the parties (e.g., the total amount of cost sharing on each invoice when considered cumulatively with previous invoices must reflect, at a minimum, the cost sharing percentage negotiated). When FFRDC funding will be provided directly to the FFRDC(s) by DOE, recipients will be required to provide project cost share at a percentage commensurate with the FFRDC costs, on a budget period basis, resulting in a higher interim invoicing cost share ratio than the total award ratio.

In limited circumstances, and where it is in the government's interest, the DOE Grants Officer may approve a request by the recipient to meet its cost share requirements on a less frequent basis than required by the terms and conditions of the award. Regardless of the interval requested, the recipient must be up to date on cost share at each interval. Such requests must be sent to the Grants Officer during award negotiations and include the following information: (1) a detailed justification for the request; (2) a proposed schedule of payments, including amounts and dates; (3) a written commitment to meet that schedule; and (4) such evidence as necessary to demonstrate that the recipient has complied with its cost share obligations to date. The Grants Officer must approve all such requests before they go into effect.

22. Implementation of Executive Order 13798, Promoting Free Speech and Religious Liberty

States, local governments, and other public entities may not condition subawards in a manner that would discriminate against or otherwise disadvantage subrecipients based on their religious character.

23. Pay Transparency Requirements

All recipients must comply with all applicable federal labor and employment laws, including but not limited to Title VII of the Civil Rights Act of 1964, the Fair Labor Standards Act, the Occupational Safety and Health Act, and the National Labor Relations Act, which protects employees' right to bargain collectively and engage in other concerted activities for the purpose of mutual aid or protection.

24. Human Subjects Research

Research involving human subjects, biospecimens, or identifiable private information conducted with DOE funding is subject to the requirements of DOE Order 443.1C, Protection of Human Research Subjects, 45 CFR Part 46, Protection of Human Subjects (subpart A which is referred to as the "Common Rule"), and 10 CFR Part 745, Protection of Human Subjects. Additional information on the DOE Human Subjects Research Program can be found at: HUMAN SUBJECTS Human Subjects Pr... | U.S. DOE Office of Science (SC) (osti.gov).

B. Reporting

Reporting requirements are identified on the Federal Assistance Reporting Checklist, attached to the award agreement.

DOE must measure the performance to show achievement of program goals and objectives, share lessons learned, improve program outcomes, and foster the adoption of promising practices. DOE will establish program goals and objectives during negotiations and incorporate it into the award terms. To clearly communicate the specific reporting requirements to meet the program goals and objectives in the federal award, DOE combined all reporting into one document, the Federal Assistance Reporting Checklist. This document, attached to the award agreement, provides any expected outcomes (such as outputs, service performance, or public impacts of any of these), indicators, targets, baseline data, or data collections that the applicant will be responsible for measuring and reporting

Refer to the Federal Assistance Reporting Checklist (DOE F 4600.2), attached to the award package, for award-specific reporting requirements.

IX. Other Information

A. Government Right to Reject or Negotiate

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

B. Commitment of Public Funds

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

C. Treatment of Application Information

Applicants should not include trade secrets or business-sensitive, proprietary, or otherwise confidential information in their application unless such information is necessary to convey an understanding of the proposed project or to comply with a requirement in the NOFO. Applicants are advised to not include any critically sensitive proprietary detail.

The Freedom of Information Act, 5 U.S.C. 552, requires DOE to release certain federal financial assistance documents and records requested by members of the public regardless of the intended use of the information. DOE will release funded applications and funded progress reports, including award data, as legally releasable at the conclusion of the competitive funding process. However, DOE will generally withhold this information during the pendency of competitive stages of the funding process.

If an application includes trade secrets or business-sensitive, proprietary, or otherwise confidential information, it is furnished to the federal government in confidence with the understanding that the information shall be used or disclosed only for evaluation of the application. Such information will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act. Without assuming any liability for inadvertent disclosure, DOE will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for merit review of the application or as otherwise authorized by law. This restriction does not limit the federal government's right to use the information if it is obtained from another source.

Applications and other submissions containing trade secrets or business-sensitive, proprietary, or otherwise confidential information must be marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The federal government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose as authorized by law.

The cover sheet of the application, and other applicant submission must be marked as follows and identify the specific pages containing trade secrets or business-sensitive, proprietary, or otherwise confidential information:

Notice of Restriction on Disclosure and Use of Data:
Pages [list applicable pages] of this document may contain trade secrets or business-sensitive, proprietary, or otherwise confidential information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance agreement between the submitter and the government. The government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source. [End of Notice]

In addition, (1) the header and footer of every page that contains trade secrets or business-sensitive, proprietary, or otherwise confidential information must be marked as follows: "Contains Trade Secrets, Business-Sensitive, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure," and (2) every line or paragraph containing such information must be clearly marked with double brackets or highlighting. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

D. Notice Regarding Eligible/Ineligible Activities

Eligible activities under this NOFO include those that 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.

E. Notice of Right to Conduct a Review of Financial Capability

DOE reserves the right to conduct an independent third-party review of financial capability for applicants that are selected for negotiation of award (including personal credit information of principal(s) of a small business if there is insufficient information to determine financial capability of the organization).

F. Requirement for Full and Complete Disclosure

Applicants are required to make a full and complete disclosure of all information requested. Any failure to make a full and complete disclosure of the requested information may result in:

- The cancellation of award negotiations;
- The modification, suspension, and/or cancellation of a funding agreement;
- The initiation of debarment proceedings, debarment, and/or a declaration of ineligibility for receipt of federal contracts, subcontracts, and financial assistance and benefits; and
- Civil and/or criminal penalties.

G. Retention of Submissions

DOE expects to retain copies of all applications and other submissions. By applying to DOE for funding, applicants consent to DOE's retention of their submissions.

H. Title to Subject Inventions

Ownership of subject inventions is governed pursuant to the authorities listed below:

a. Domestic Small Businesses, Educational Institutions, and Nonprofits: Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), domestic small businesses, educational institutions, and nonprofits may elect to retain title to their subject inventions.

b. Domestic Large Businesses: DOE has issued a class patent waiver that applies to this NOFO. Under this class waiver, domestic large businesses may elect title to their subject inventions similar to the right provided to the domestic small businesses, educational institutions, and nonprofits by law. To avail itself of the class waiver, a domestic large business must agree that any products embodying or produced through the use of a subject invention first conceived or first actually reduced to practice under this program will be substantially manufactured in the United States.

c. All other parties: The Federal Non-Nuclear Energy Act of 1974, 42. U.S.C. § 5908, provides that the government obtains title to new inventions unless a patent waiver is granted. Applicants not covered by a Class Patent Waiver or the Bayh-Dole Act may request a patent waiver that will cover subject inventions that may be invented under the award, in advance of or within 30 days after the effective date of the award. Even if an advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver for identified inventions, i.e., individual subject inventions that are disclosed to DOE within the timeframes set forth in the award's intellectual property terms and conditions. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.

d. DEC: 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 subawards, under the applicable NOFO Part 1 shall include the U.S. Competitiveness Provision in accordance with the U.S. Manufacturing Commitments. 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.

e. DOE may issue and publish further DECs on the website above prior to the issuance of awards under the applicable NOFO Part 1. DOE may require additional submissions or requirements as authorized by any applicable DEC.

I. Government Rights in Subject Inventions

Where recipients, subrecipients, and contractors retain title to subject inventions, the U.S. government retains certain rights.

Government Use License

The U.S. government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world. This license extends to government contractors.

March-In Rights

The U.S. government retains march-in rights with respect to all subject inventions. Through "march-in rights," the government may require a recipient or subrecipient who has elected to retain title to a subject invention (or their assignees or exclusive licensees), to grant a license for use of the invention to a third party. In addition, the government may grant licenses for use of the subject invention when a recipient, subrecipient, or their assignees and exclusive licensees refuse to do so.

DOE may exercise its march-in rights only if it determines that such action is necessary under any of the four following conditions:

- The owner or licensee has not taken or is not expected to take effective steps to achieve practical application of the invention within a reasonable time;
- The owner or licensee has not taken action to alleviate health or safety needs in a reasonably satisfied manner;
- The owner has not met public use requirements specified by federal statutes in a reasonably satisfied manner; or
- The United States manufacturing requirement has not been met.

Any determination that march-in rights are warranted must follow a fact-finding process in which the recipient has certain rights to present evidence and witnesses, confront witnesses and appear with counsel and appeal any adverse decision. To date, DOE has never exercised its march-in rights to any subject inventions.

J. Copyright

The recipient and subrecipient(s) 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.

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 investigations, indictments, charges, convictions, and violations upon occurrence, 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 covered telecommunications equipment or services; extend or renew a contract to procure or obtain covered telecommunications equipment or services; or enter into a contract (or extend or renew a contract) to procure or obtain *covered telecommunications equipment or services*. As described in Section 889 of Public Law 115-232, covered telecommunications equipment or services is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

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

M. Personally Identifiable Information (PII)

All information provided by the applicant must to the greatest extent possible exclude PII. "PII" refers to information that can be used to distinguish or trace an individual's identity, such as their name, Social Security number, or biometric records, alone or combined with other personal or identifying information linked or linkable to a specific individual, such as date and place of birth or mother's maiden name.

By way of example, applicants must screen resumes to ensure that they do not contain PII such as personal addresses, personal landline/cell phone numbers, and personal emails. **Under no circumstances should Social Security numbers (SSNs) be included in the application**. Federal agencies are prohibited from the collecting, using, and displaying unnecessary SSNs. (See the Federal Information Security Modernization Act of 2014 (Pub. L. No. 113-283, Dec 18, 2014; 44 U.S.C. § 3551).

N. Annual Independent Audits

If a for-profit entity is a recipient and has expended $1,000,000 or more of DOE awards during the entity's fiscal year, an annual compliance audit performed by an independent auditor is required. For additional information, please refer to 2 CFR 910.501 and Subpart F.

If an educational institution, nonprofit organization, or state/local government is a recipient or subrecipient and has expended $1,000,000 or more of federal awards during the non-federal entity's fiscal year, a Single or Program-Specific Audit is required. For additional information, please refer to 2 CFR 200.501 and Subpart F.

Applicants and subrecipients (if applicable) should propose sufficient costs in the project budget to cover the costs associated with the audit. DOE will share in the cost of the audit at its applicable cost share ratio.

O. Buy America Requirements for Infrastructure Projects; Required Use of American Iron, Steel, Manufactured Products, and Construction Materials Produced in the United States

A. Definitions

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

- **Components** -See 2 CFR 184.3 Definitions.
- **Construction Materials** -See 2 CFR 184.3 Definitions.
- **Domestic Content Procurement Preference Requirement** – means a requirement that no amount of funds made available through a program for federal financial assistance may be obligated for an infrastructure project unless—
  - all iron and steel used in the project are produced in the United States;
  - the manufactured products used in the project are produced in the United States; or
  - the construction materials used in the project are produced in the United States.
- Also referred to as the **Buy America Requirement.**
- **Infrastructure** -See 2 CFR 184.4(c) and (d).
- **Infrastructure Project** – See 2 CFR 184.3 Definitions.
- **Manufactured Products** – See 2 CFR 184.3 Definitions
- **Predominantly of iron or steel or a combination of both** -See 2 CFR 184.3 Definitions.
- **Produced in the United States** – See 2 CFR 184.3 Definitions.
- **Project** – means the construction, alteration, maintenance, or repair of infrastructure in the United States.
- **Public** – The Buy America Requirement does not apply to non-public (private) infrastructure. For purposes of this guidance, infrastructure should be considered "public" if it is: (1) publicly owned (owned, operated, funded and managed, in whole or in part, by any unit or authority of a Federal, State, or Local government-including U.S. Territories and Indian Tribes); or (2) privately owned but utilized primarily for a public purpose. Infrastructure should be considered to be "utilized primarily for a public purpose", and therefore "public", if it is privately owned but operated on behalf of the public or is a place of public accommodation.
- **Section 70917(c) Materials** – See 2 CFR 184.3 Definitions.

B. Buy America Requirement for Infrastructure Projects (Buy America Requirement)

None of the award 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 is produced in the United States—this means all 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. See 2 CFR 184.5 for determining the cost of components for manufactured products; and

(3) all construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. See 2 CFR 184.6 for construction material standards.

The Buy America Requirement only applies to those articles, materials, and supplies that are consumed in, incorporated into, or affixed to the infrastructure in the 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 Requirement 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 Requirement only applies to an article, material, or supply classified into one of the following categories* based on its status at the time it is brought to the work site for incorporation into an infrastructure project:

(i) Iron or steel products;
(ii) Manufactured products; or
(iii) Construction materials.

The Buy America Requirement only applies to the iron or steel products, manufactured products, and construction materials used for the construction, alteration, maintenance, or repair of public infrastructure in the United States when those items are consumed in, incorporated into, or permanently affixed to the infrastructure. An article, material, or supply incorporated into an infrastructure project should not be considered to fall into multiple categories, but rather must meet the Buy America Preference Requirement for only the single category in which it is classified.

All iron and steel, manufactured products, and construction materials used in the infrastructure project must be produced in the United States.

** Section 70917(c) Materials* are cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives as provided in section 70917(c) of BABA. Section 70917(c) materials are excluded from Construction materials. Asphalt concrete pavement mixes are typically composed of asphalt cement (a binding agent) and aggregates such as stone, sand, and gravel. Accordingly, asphalt is also excluded from the definition of Construction materials.

Section 70917 (c) materials, on their own, are not manufactured products. Further, Section 70917(c) materials should not be considered manufactured products when they are used at or combined proximate to the work site—such as is the case with wet concrete or hot mix asphalt brought to the work site for incorporation. However, certain Section 70917(c) materials (such as stone, sand, and gravel) may be used to produce a manufactured product, such as is precast concrete. Precast concrete is made of components, is processed into a specific shape or form, and is in such state when brought to the work site. Furthermore, wet concrete should not be considered a manufactured product if not dried or set prior to reaching the work site.

Further clarification is provided in 2 CFR 184 on the circumstances under which a determination is made that Section 70917(c) materials should be treated as components of a manufactured product. That determination is based on consideration of: (i) the revised definition of the "manufactured products" at 2 CFR 184.3; (ii) a new definition of "section 70917(c) materials" at 2 CFR 184.3; (iii) new instructions at 2 CFR 184.4(e) on how and when to categorize articles, materials, and supplies; and (iv) new instructions at 2 CFR 184.4(f) on how to apply the Buy America preference by category.

The Buy America Requirement does not statutorily apply to Prime Recipients that are For-Profit Entities. However, the Buy America Requirement is applicable to a For-Profit Entity if: (1) it is a sub-recipient or sub-awardee under an award that contains the Buy America Requirement term and condition, or (2) it is the Prime Recipient that voluntarily chooses to use domestically sourced iron, steel, manufactured products, and constructions materials by stating so in its proposed application containing an infrastructure project. If the For-Profit Entity specifically states that it will comply with the Buy America Requirements in its application and it is selected for award, its award will contain a *Buy America Requirement for Infrastructure Projects* term and condition.

The Prime Recipient is responsible for flowing the Buy America Requirement down to all sub-awards, all contracts, subcontracts, and purchase orders for work performed under the proposed infrastructure project, including to For-Profit Entities when the For-Profit Entity is a sub-recipient or sub-awardee.

Recipients must certify or provide equivalent documentation for proof of compliance that a good faith effort was made to solicit bids for domestic products used in the infrastructure project under this award.

Recipients must also maintain certifications or equivalent documentation for proof of compliance that those articles, materials, and supplies that are consumed in, incorporated into, affixed to, or otherwise used in the infrastructure project, not covered by an approved waiver or an exemption provided in 2 CFR 184.8, are produced in the United States. The certification or proof of compliance must be provided by the suppliers or manufacturers of the iron, steel, manufactured products and construction materials and flow up from all subawardees, contractors and vendors to the recipient. Recipients must keep these certifications with the award/project files and be able to produce them upon request from DOE, auditors or Office of Inspector General.

C. DOE Submission Requirements for Full Application

Within the first two pages of the workplan or project description, applicants must provide a short statement on whether the project will involve the construction, alteration, maintenance 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 the Buy America Requirement, which may impact the project's proposed budget and/or schedule.

D. Waivers

In limited circumstances, DOE may waive the application of the Buy America Requirement in an award where DOE determines that:

(1) applying the Buy America requirements would be inconsistent with the public interest (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 (Non-Availability); 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 (Unreasonable Cost).

DOE will only process waiver requests after an award has been made and for which the requests have been submitted in accordance with the term and conditions of the award. Waiver requests must be reviewed by DOE and the Office of Management and Budget's (OMB) Made in America Office and are subject to a public comment period of no less than 15 calendar days.

Waiver Requests may be submitted utilizing Optional Form 2211 (OF2211) or any other format to provide the required information below. DOE or OMB may request additional information for consideration of the wavier. DOE may reject or grant waivers in whole or in part depending on its review, analysis, and/or feedback from OMB or the public. DOEs final determination regarding approval or rejection of the waiver request may not be appealed by a Recipient. The waiver request review and public comment process required for a waiver determination can take up to 65 calendar days.

Requests to waive the Buy America Requirement must include the following:

- Waiver type (Public Interest, Non-Availability, or Unreasonable Cost);
- Recipient name and Unique Entity Identifier (UEI);
- Award information (Federal Award Identification Number, Assistance Listing number);
- A brief description of the award- project objectives, location, and the specific infrastructure project involved;
- Total estimated Financial Assistance award value, inclusive of recipient cost share;
- Total estimated infrastructure costs (estimated costs of the Iron, Steel, Manufactured Products and Construction Materials being purchased under the award and utilized in the infrastructure project);
- List and description of iron or steel item(s), manufactured goods, and/or construction material(s) the recipient seeks to waive from the Buy America Requirement, including name, cost, quantity(ies), country(ies) of origin, and relevant Product Service Codes (PSC) and North American Industry Classification System (NAICS) codes for each;
- A detailed justification as to how the non-domestic item(s) is/are essential the project;
- A certification that the recipient made a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, and non-proprietary communications with potential suppliers;
- A justification statement—based on one of the applicable justifications outlined above—as to why the listed items cannot be procured domestically, including the due diligence performed (e.g., market research, industry outreach, cost analysis, cost-benefit analysis) by the recipient to attempt to avoid the need for a waiver. This justification may cite, if applicable, the absence of any Buy America-compliant bids received for domestic products in response to a solicitation; A description of the market research conducted that includes who conducted the market research, when it was conducted, sources that were used, and the methods used to conduct the research; and
- Anticipated impact to the project if no waiver is issued.

The following principles should be incorporated as minimum requirements in waiver request:

- Time-limited: Consider a waiver constrained principally by a length of time, or phased-out over time, rather than by the specific project/award to which it applies. Waivers of this type may be appropriate, for example, when an item that is "non-available" is widely used in the project. When requesting such a waiver, the recipient should identify a reasonable, definite time frame (e.g., no more than one to two years) designed so that the waiver is reviewed to ensure the condition for the waiver ("non-availability") has not changed (e.g., domestic supplies have become more available).
- Targeted: Waiver requests should apply only to the item(s), product(s), or material(s) or category(ies) of item(s), product(s), or material(s) as necessary and justified. Waivers should not be overly broad as this will undermine domestic preference policies.
- Conditional: The recipient may request a waiver with specific conditions that support the policies of IIJA/BABA and Executive Order 14017.

P. Acronyms

Acronym	Spelled Out	Acronym	Spelled Out
ANC	Alaska Native Corporation	**NOFO**	Notice of Funding Opportunity
BABA	Build America, Buy America Act	**NSF**	National Science Foundation
IIJA	Infrastructure Investment and Jobs Act	**NSUF**	Nuclear Science User Facilities
CEQ	Council on Environmental Quality	**OMB**	Office of Management and Budget
CINR	Consolidated Innovative Nuclear Research	**OSHA**	Occupational Safety and Health Administration
COI	Conflict of Interest	**OSTI**	Office of Scientific and Technical Information
CRADA	Cooperative Research and Development Agreement	**OTA**	Other Transactions Authority
DBA	Davis-Bacon Act	**PII**	Personally Identifiable Information
DEC	Determination of Exceptional Circumstances	**PLA**	Project Labor Agreement
DMSP	Data Management and Sharing Plan	**R&D**	Research and Development
DOE	United States Department of Energy	**RD&D**	Research, Development, and Demonstration
DOI	Digital Object Identifier	**REU**	Research Experiences for Undergraduates
DOL	United States Department of Labor	**RMP**	Risk Management Plan
EO	Executive Order	**RTES**	Research, Technology, and Economic Security
FCOI	Financial Conflicts of Interest	**SAM**	System for Award Management

FFATA	Federal Funding and Transparency Act of 2006	**SciENcv**	Science Experts Network Curriculum Vita
FFRDC	Federally Funded Research and Development Center	**SMART**	Specific, Measurable, Achievable, Relevant, and Timely
IRA	Inflation Reduction Act	**SOPO**	Statement of Project Objectives
LOA	Letter of Authorization	**SOW**	Statement of Work
LOI	Letter of Intent	**SPOC**	Single Point of Contact
M&O	Management and Operations	**STEM**	Science, Technology, Engineering, and Mathematics
MFA	Multi-Factor Authentication	**TA**	Technical Assistance
NEPA NDA	National Environmental Policy Act Non-Disclosure Acknowledgement	**UCC**	Uniform Commercial Code
NHPA NEPA	National Historic Preservation Act National Environmental Policy Act	**UEI**	Unique Entity Identifier
NNSANHPA	National Nuclear Security Administration National Historic Preservation Act	**WBS**	Work Breakdown Structure
NNSA	National Nuclear Security Administration	**FWP**	Field Work Proposal

Appendices/Reference Material

A) Topic areas for U.S. University-led R&D Projects and NSUF Access with R&D (NSUF-1) Projects

TOPIC AREA 1 – ADVANCED REACTOR DEVELOPMENT AND PLANT OPTIMIZATION
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000; NEST ELIGIBLE

Advanced reactor concepts have the potential to offer significant benefits, including lower costs, enhanced safety and security, greater resource utilization, and simplified operations. NE performs research and development (R&D) to support a range of advanced reactor concepts, including high temperature gas-cooled reactors (HTGRs), sodium-cooled fast reactors (SFRs), molten salt reactors (MSRs), microreactors, space power reactors and other concepts. Proposals are being sought for activities that could help reduce the technical risks associated with these designs. Some potential challenges that could be addressed include, but are not limited to, advanced reactor component development and testing; advanced reactor transient and safety analysis, including experiments for software validation; innovative solutions to material and operational challenges presented by molten salts (as distinct from fuel development described in Topic Area 4); core and system design optimization or modifications; characterization of system changes over time; technologies for space fission applications, such as component mass reduction and long-lived components; optimization of fueling strategies; and materials surveillance during reactor operations.

Additionally of interest are advances in reactor development, design, and testing that improve technical, cost, safety, efficiency, and security metrics associated with advanced reactor technologies across a broad range of sizes, coolants, fuels, neutron spectra, and applications, including maritime nuclear. NE is also interested in research related to plant optimization including, but not limited to, siting; economics; construction and scheduling outcomes; reducing cost and deployment timelines; remote deployment of reactors; secure operations, including novel solutions to address the unique requirements associated with nuclear data center applications; and other relevant topics of interest. Activities related to non-traditional and non-electric applications for nuclear energy are also of interest including the development and testing of hardware supporting the integration of nuclear reactors with process heat applications such as pyrolysis, hydrothermal liquefaction, or CO2 separation and purification, including heat exchangers and thermal transport components required for interfacing nuclear reactors.

Proposals should clearly identify the challenge being addressed and how proposed activities will advance the development, demonstration, and future deployment of advanced reactor concepts.

TOPIC AREA 2 – EXISTING PLANT OPTIMIZATION
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

The United States benefits from the largest existing fleet of nuclear reactors in the world. Maintaining access to the energy supplied by our current fleet of nuclear reactors is essential to our nation's energy security. To support this goal, NE is seeking proposals for research projects to

TOPIC AREA 2 – EXISTING PLANT OPTIMIZATION
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

develop technologies or other solutions to significantly reduce operating costs, improve economic competitiveness of existing plants, expand plant capacity and power output, and extend plant operational lifetimes.

Reduced operating costs could arise from innovation in areas including, but not limited to, implementation of novel artificial intelligence applications and technologies, risk-informed reductions in security conservatism, or plant asset management. Meanwhile, research underpinning the scientific bases for reactor power uprates and reactor restarts also have the potential to increase the power capacity of our nation's electric grid. Additionally, research targeting the reduction of the workforce to significantly drop the operating cost and improve the business case for new reactor buildup is encouraged. Similarly, understanding and addressing the aging of structures, systems, and components through emerging techniques such as additive manufacturing, artificial intelligence/machine learning, and others have the potential to optimize and extend the safe, cost-effective operational lifetimes of existing reactors. Examples of targeted topics include:

- New methods and techniques for licensing, including modifications to existing plants, license renewal, and licensing of new plants.
- New methods and techniques to enable robotics to perform maintenance work at nuclear power plants.
- Methods to risk-inform the use of AI in critical applications.
- New methods and techniques to streamline human performance evaluations.
- New methods and techniques to reduce surveillance frequency, especially for standby equipment that generates minimal data.
- Foundational AI models that can automate a broad set of plant operations and maintenance activities.
- New methods and techniques of correlating heterogeneous forms of data (e.g., text, images, sensors measurements).
- New methods and techniques to streamline manual and expensive processes at a nuclear power plant.

Successful proposals in this topic area will pioneer discoveries, methods, and solutions that bolster the economic and technical sustainability of the current fleet of nuclear reactors.

Proposals should clearly identify the challenge being addressed and how proposed activities will advance technology. The research approach should also outline the research and project challenges (e.g., data availability) and the means to overcome them.

TOPIC AREA 3 – NUCLEAR FUEL RECYCLE TECHNOLOGIES
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

Deployment of advanced nuclear reactors will inevitably introduce new challenges for devising and implementing an efficient, safe, secure, and economical nuclear fuel cycle that meets society's

TOPIC AREA 3 – NUCLEAR FUEL RECYCLE TECHNOLOGIES
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

need for clean energy and expectations for environmental stewardship.
Innovative technologies and processes for the recovery, recycle, and reuse of valuable components from used nuclear fuel such as uranium, transuranic elements, noble metals, and cladding, including development of transmutation targets to destroy long lived isotopes, will enable sustainable nuclear energy development.

NE seeks proposals for R&D on advanced fuel recycle technologies that have the potential to improve resource utilization and energy generation, reduce long-term radiotoxicity, reduce waste generation, and incorporate the highest standards of safety and security. Specific emphasis is on:

- Developing advanced fuel recycling technologies for used fuel from existing and advanced reactors;
- Addressing fundamental materials separations and recovery challenges that present significant degrees of technical risks and financial uncertainties; and
- Enhancing of the recovery of valuables materials from used nuclear fuel (cladding and structural material, medical and industrial isotopes, noble metals, etc.) for reuse.

Areas for emerging technologies and future research directions are described in the following workshop reports: (1) Innovative Separations R&D Needs for Advanced Fuel Cycles (https://info.ornl.gov/sites/publications/Files/Pub172641.pdf); and (2) Technology and Applied R&D Needs for Molten Salt Chemistry (https://publications.anl.gov/anlpubs/2024/02/187645.pdf).

TOPIC AREA 4 – FUELS
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

Accident tolerant fuel (ATF) concepts result from NE cooperation with U.S. fuel suppliers with significant support from the U.S national laboratories and universities to develop near-term Light Water Reactor (LWR) enhanced fuel concepts including coated zirconium cladding and doped UO2 pellets. Longer term concepts include iron-chromium-aluminum cladding and high uranium density fuels. Proposals are sought, but not limited to, areas that significantly can contribute to enhancing LWR safety and performance, including potential applications to next generation Small Modular Reactors (SMRs). Proposals to this call should deal with concepts significantly different from those already under development.

Silicon Carbide fuel cladding is being studied to be part of a specific Next Generation Fuels Program as a longer-term advanced fuel concept to provide robust safety performance for irradiation resistance and high temperature thermal hydraulic operational and transient conditions. Proposals are sought for activities that enable the goal of licensing silicon carbide cladding for operating in light water reactors (LWR) and helium-cooled fast and thermal reactors. Potential focus areas could include, but are not limited to, non-destructive evaluation methods, quality assurance characterization techniques, and advances in silicon carbide fuel cladding fabrication methods.

TRISO coated particle fuel has demonstrated robust safety performance for high temperature applications. Numerous U.S. companies are pursuing the use of UCO TRISO fuel in their advanced high temperature reactor concepts. Advanced Coated Particle Fuel research is being conducted in the Next

TOPIC AREA 4 – FUELS
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

Generation Fuels Program, extending TRISO fuel with different fuel kernel types and advanced coating concepts. Proposals are sought for activities that enable the goal of licensing and operating nuclear reactors that utilize coated particle TRISO-like fuel. Potential focus areas could include, but are not limited to, a comprehensive understanding of fuel and fuel matrix properties under irradiated conditions; addressing unique challenges associated with the use of coated particle fuel in non-typical (i.e., non-helium, high temperature) environments; and activities to evaluate or develop novel fuel forms, including new fuel kernel compositions.

Metallic fuels for advanced reactors can operate in open or closed fuel cycles. Both open and closed metal fuel cycle applications place a high priority on manufacturability, economics, safety, and resource utilization. Proposals are sought, but not limited to, research that will develop and evaluate new or already proposed metallic fuel innovations. Bond-free metallic fuel concepts have led towards annular fuel concepts which introduce very different irradiation behavior and add additional challenges in the manufacturing and assembly process. Ideally, results will support modeling of metallic fuel performance.

Molten salt fuels are liquid fuels used in several molten salt reactor (MSR) concepts in which the fissile material is dissolved in a molten fluoride or molten chloride solution. Typically, the molten salt fuel also serves as the MSR primary coolant/heat transfer media. There continues to be a need to support the design and optimization of MSRs by characterizing and modeling the thermophysical and thermochemical properties of molten salt solutions as well as the atomic level structure and chemistry of potential molten salt fuels as a function of composition. Molten salt fuel R&D under this topic area also needs to be expanded to address the process chemistry and technology needs and gaps of entire molten salt entire fuel cycle. In 2023 a workshop was held at Argonne National Laboratory on the MSR Fuel Cycle Chemistry R&D needs. The Molten Salt Reactor Fuel Cycle Chemistry Workshop Report* summarizes the current state of the art and identifies R&D needs under the following nine headings: 1) conversion of fuel sources to salt; 2) fresh fuel salt purification; 3) scale-up of fuel synthesis, packaging and delivery; 4) fuel salt characterization and qualification; 5) technologies for recovering actinides; 6) used salt purification for recycle; 7) recovery and transmutation of long-lived isotopes; 8) noble metal and insoluble fission product recovery; and 9) safeguards approaches for liquid fuels and fuel cycle facilities.

Proposals should clearly identify the challenge being addressed and how proposed activities will advance the technology.

*https://publications.anl.gov/anlpubs/2024/02/187645.pdf

TOPIC AREA 5 – DISPOSAL RESEARCH
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

It is anticipated that a future mined U.S. geological repository will be used to dispose of the nation's commercial spent nuclear fuel (SNF). The disposal concept for a mined repository includes excavating the tunnels, placing the disposal canisters of SNF and potentially back filling the void

TOPIC AREA 5 – DISPOSAL RESEARCH
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

space in the tunnel with a bentonite clay.

The remote possibility exists that over tens of thousands of years a small crack could form in a weld in a disposal canister that could allow the slow ingress of water into the interior of the canister. For the last several decades DOE has invested significant time investigating engineered back fills including surrounding the canisters with bentonite clay.

The behavior of clays and in particular bentonite clays can be heavily influenced by the presence of chemicals in the water. These chemicals can dramatically change the physical behavior of the clay.

DOE is interested in a university team conducting a series/matrix of tests to examine the behavior of specified bentonite clays to seal a simulated section of a spent fuel storage system. The proposed scope of work is:

1. A paper and presentation from the university team to DOE that describes why bentonite clays are used in geological repositories.
2. A presentation to DOE by the university team on storage system for spent nuclear fuel and the expected physical conditions that could be encountered in a future deep geological repository.
3. A visit to an international test facility to discuss the test program. The cost should be included for a small group of students.
4. A presentation on the proposed test plan.
    a. Matrix of tests to examine physical behavior of a defined bentonite clay when exposed to different chemicals in ground water.
    b. Description of the test facility that would mimic the conditions in a DGR for a cracked storage system. Please note heating and pressure might be required.
5. Build and commission the test facility.
6. Conduct a series/matrix of tests.

Presentations at the DOE mid-year and end-of-year meetings are required.

TOPIC AREA 6 – DESIGN OF A MINED DEEP GEOLOGICAL REPOSITORY
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 1 YEAR AND $300,000)

From the current fleet of commercial nuclear reactors DOE expects approximately 180,000 tHM of spent nuclear fuel that will be packaged into approximately 14,000 large storage canisters. DOE is interested in universities proposing concepts for what a mined deep geological repository would look like in one of the 3 main geological media in the U.S., namely shale, salt, and granite.

The scope of work will include:

1. Kickoff meeting with DOE. DOE will physically describe the storage systems that need to be placed in a DGR and explain the fixed design parameters.
2. Two progress meetings with DOE to present the concepts and ask questions.
3. Final presentation at the DOE yearly meeting. Assume for planning purposes

TOPIC AREA 6 – DESIGN OF A MINED DEEP GEOLOGICAL REPOSITORY
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 1 YEAR AND $300,000)

Washington, D.C.

4. Final deliverable will be a report describing the concept, innovations and an associated presentation.

TOPIC AREA 7 – SOCIAL ECONOMIC MODEL FOR A FUTURE DEEP GEOLOGICAL REPOSITORY PROGRAM
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 1 YEAR AND $450,000)

DOE is updating the total lifecycle costs for a future deep geological repository for managing the nation's spent nuclear fuel and high-level radioactive waste. The program is anticipated to cost greater than $100B and span a period of nearly 200 years.

Accredited university business schools are requested to put forward proposals for how they could take the total life-cycle costs (LCC) and develop clear social economic models for 4 regions within the U.S. to clearly show the social and economic impact of a facility at the state level, adjoining states and on the region.

This scope of work will include:

1. DOE will provide subject matter experts on the LCC to support the university team.
2. Monthly meetings with DOE are required.
3. Presentations at the DOE mid-year and end-of-year meetings are required.
4. Social economic report and associated summary presentation.

TOPIC AREA 8 – PUBLIC PERCEPTION OF AN INTEGRATED WASTE MANAGEMENT SYSTEM
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

Among many options, the DOE Office of Nuclear Energy's Office of Storage & Transportation is exploring the possibility of one or more federal consolidated storage facilities (CSF), sited using a collaboration-based process, ready to receive commercial spent nuclear fuel (SNF) as soon as practicable. A collaboration-based siting process prioritizes communities and decisionmakers at the local and State levels to develop a collaborative, phased, and adaptive process. The siting and operations of the facility or facilities would involve extensive meaningful public engagement, broad participation, planning, emergency responder training, and more. DOE will need to understand the factors that may influence the long-term vision, design, construction, and maintenance of a major infrastructure development project (e.g., federal CSF), as well as to gain public trust and confidence for the successful large-scale transport of SNF and subsequent operation of federal storage and final disposal facilities.

In support of these efforts, DOE seeks innovative research projects related to 1) SNF storage facility designs that are reflective of community values and/or strategic goals and 2) public perceptions about SNF transportation, storage, and disposal. Proposals should clearly identify the challenge being addressed and how the proposed activities will advance DOE efforts.

TOPIC AREA 9 – MODELING AND SIMULATION
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

Science-based, verified, and validated modeling and simulation capabilities are essential for the design, implementation, and operation of nuclear energy systems and fuel cycle technologies. This topic area focuses on nuclear energy related modeling and simulation projects that develop or improve tools for many different applications including, but not limited to: high fidelity reactor modeling, including neutronics, structural dynamics, and thermal hydraulics; multi-scale, multi-physics models for characterizing complex neutron kinetics, dynamics, microstructural, and thermomechanical phenomena; verification and validation; uncertainty quantification; and flow modeling, among other relevant areas.

Applications under this Topic Area should primarily focus on development or improvement of modeling tools, while the use or benchmarking of modeling and simulation tools, including the generation of supporting data, would need to be included in one of the other Topic Areas that best relates to the reactor, fuel type or technology being investigated or supported.
Proposals should clearly identify the challenge being addressed, how proposed activities will advance the technology, and how the proposed work builds upon and is different from other related work.

TOPIC AREA 10 –MEASURING, MONITORING, AND CONTROLS
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000

Robust sensors, instrumentation, and controls are needed to enhance capabilities, provide for higher accuracy, and to accommodate new and challenging operational environments in the existing fleet and advanced reactors including space reactor applications. NE seeks proposals for sensor development that add new capabilities to existing technologies or develops novel technologies to support relevant and challenging operational conditions.

NE has identified artificial intelligence (AI) and machine learning (ML) methods can complement the development and operation of sensors, as well as enhance advanced control systems, such as autonomous or remote operations, in the nuclear energy industry. Additionally, the utilization of digital twin platforms is considered a high impact tool as part of the research progression from benchtop experimentation to reactor demonstration.

Topics of interest in this area could include, but are not limited to:

1. Development of AI/ML techniques and/or applications relevant to the current fleet or advanced reactors.
2. Capability enhancement of existing sensor technologies, or development of novel instruments that fill identified measurement technology gaps.
3. Construction of a digital twin to complement a physical reactor system or architecture.

Applicants with AI/ML focused proposal should provide details regarding training data and discuss whether access to High Performance Computing (HPC) resources will be necessary to complete project objectives.

TOPIC AREA 10 –MEASURING, MONITORING, AND CONTROLS
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000

Applicants with instrumentation focused proposals should provide a roadmap of development anticipated during the project and should provide commentary on experimental testing; whether it is conducted on the benchtop or in relevant reactor conditions. Proposals for instrumentation should discuss how challenging operating conditions will be taken into account (i.e., corrosivity, extreme heat, radiation).

Applicants with digital twin focused proposals should describe the physical twin system and provide details regarding digital twin operational accuracy validation.

*Note – applications with scope primarily focused on cybersecurity should review and consider applying to Topic Area 10.

Proposals should clearly identify the challenge being addressed and how proposed activities will advance the technology.

TOPIC AREA 11 – LICENSING, SAFETY, AND SECURITY
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEAR AND $1,000,000; NEST ELIGIBLE

There is a continued need for enhancing understanding of licensing and safety requirements as they apply to the safe and secure operations of reactors and all fuel cycle related facilities. NE is seeking proposals in the areas of safeguards and security, nuclear materials control and accountability (MC&A), cybersecurity, safety analysis methods, regulatory frameworks, and systems engineering and integration of these areas.

Topics of interest include, but are not limited to, enhancing the applicability, usability and efficiency of Probabilistic Risk Assessment (PRA) tools or other innovative risk assessment methodologies; combined hazard PRA models; advanced reactor software validation; innovative methods and tools for licensing, security, and safeguards of nuclear fuel cycle including advanced reactors, and fuel fabrication and recycling processes; cost- effective means of managing advanced cybersecurity threats; enabling the cyber-secure deployment of advanced digital technologies; methods for accelerating advanced reactor licensing; and addressing specific gaps in licensing technical requirements for advanced reactors.

Proposals should clearly identify the challenge being addressed and how proposed activities will reduce regulatory uncertainties and/or enhance the safety, security and/or safeguards of the concept being considered**.**

TOPIC AREA 12 – ADVANCED NUCLEAR MATERIALS AND MANUFACTURING TECHNOLOGIES
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

Revolutionary technologies in crosscutting materials science have the potential for radical improvement in reactor or fuel cycle performance, safety, and economics. The emerging fleet of advanced reactors is supported by its strongest business case when coupled with advanced materials and manufacturing techniques that offer enhanced performance and/or significant reductions to the costs of original construction and major component replacement. These

TOPIC AREA 12 – ADVANCED NUCLEAR MATERIALS AND MANUFACTURING TECHNOLOGIES (ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

technologies could also be applied to space reactors. The concepts under consideration include advanced materials and/or classes of materials, and advances in manufacturing with applications ranging from components through complete factory fabrication of reactors for delivery and installation at the site.

NE is seeking proposals for R&D to better understand core and structural materials, advanced testing of existing materials, to explore and develop new classes of materials for identified applications, and to support the development of nuclear qualification, and/or regulatory acceptance of advanced manufacturing processes, methods, equipment, and/or materials or components manufactured using such techniques. Topics of interest most closely related to advanced materials include, but are not limited to, environmental, thermal and irradiation effects on materials, materials to efficiently immobilize fission products and off-gas capture species, use of existing tools to characterize and model degradation of key materials, components and structures such as concrete or polymers (development of new tools in Topic Area 8), development of relevant advanced metal alloys for core materials and cladding, and development of materials and methods to support waste minimization and management, such as sorbents and transmutation targets.

Advanced manufacturing topics of interest include, but are not limited to, processing and fabrication methods for composites, concrete, and metals; joining and repair; and specific applications to components, sub-systems, systems, structures and non-destructive examination. NE recognizes that advanced materials and their manufacturing methods are often not distinct categories of R&D, so it is not necessary to align applications with one of the elements within this topic area.

Proposals are also sought to support the development and characterization of innovative fuel cladding materials for fuel cycle applications. Specific interests in this area include materials design (novel metallic alloy and/or new coating), material performance under extreme conditions (e.g., fuel element-to-cladding and cladding-to-coolant interactions, high temperatures, dose/dose rate, and corrosive chemical environments), material fabrication and manufacturing technologies, and test and characterization capabilities.

Developing capture and immobilization materials for the next generation nuclear fuel recycle plant that reduces the size and associated capital and operating cost to the portions of the facility, while maintaining and improving the safety to the public. In this proposal, we are looking for materials that can effectively capture and immobilize volatile chemical species during the recycling process. Reference: Soelberg, NR, Jubin RT, 2023. *Technology Development Roadmap for Volatile Radionuclide Capture and Immobilization*. Report No. ANL/NSE-23/63.

TOPIC AREA 13 – ARTIFICIAL INTELLIGENCE FOR NUCLEAR ENERGY (ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

NE is seeking applications for innovative artificial intelligence (AI) and machine learning (ML) solutions that can accelerate nuclear energy technology design, licensing, deployment, operation, and maintenance while reducing costs in the following areas:

1. Develop and implement AI/ML solutions to accelerate irradiation and post-irradiation examination of nuclear fuel and materials. Methodologies to implement robotics and

TOPIC AREA 13 – ARTIFICIAL INTELLIGENCE FOR NUCLEAR ENERGY
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $1,000,000)

automation to modernize post-irradiation examination, mechanical testing, and other inspection testing that can significantly reduce time and/or cost for materials qualification are desired.

2. Employ frontier AI solutions to accelerate nuclear reactor licensing, enhance nuclear reactor operations, augment demonstration/deployment activities, and expand nuclear energy R&D capabilities in collaboration industry and regulators.
3. Evaluate technical, economic, siting, and regulatory processes to accelerate the near-term delivery of combined installations of AI data centers with the nuclear energy to power them.

Applications should clearly identify the challenge being addressed and how the proposed activities will advance the proposed technology.

TOPIC AREA 14 – STRATEGIC NEEDS BLUE SKY
(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $500,000)

NE is seeking applications to advance foundational models, methods, and theory. Maintaining fundamental skills and knowledge in key nuclear engineering topics is important in maintaining and establishing research excellence and expertise. Areas of interest could include, but are not limited to, thermal hydraulics, heat transfer, reactor physics, nuclear chemistry, and radiological protection. A response should address innovative research in the identified area and could include any aspect (experiments, modeling, etc.) that is necessary to accomplish the proposed scope. Applications should clearly identify the challenge being addressed and how the proposed activities will advance the proposed technology.

NUCLEAR SCIENCE USER FACILITIES (NSUF) JOINT R&D AND ACCESS (NSUF-1)

Applicants interested in a joint R&D and Nuclear Science User Facilities (NSUF) project should submit under this topic area. Proposals with NSUF access can include ion, neutron, and gamma irradiation, x-ray synchrotron beam or neutron beam interrogation, post-irradiation examination, advanced materials characterization, and high-performance computing.

Applicants are encouraged to contact the NSUF directly with questions prior to submitting and review the full list of NSUF capabilities at nsuf.inl.gov. In this topic area, **R&D support is only permitted for tasks associated with the execution of the requested NSUF capabilities**. This would include compilation and interpretation of irradiation and post-irradiation examination results, complementary modeling and simulation, data science, artificial intelligence/machine learning techniques, and related activities. NSUF readiness requirements are provided in Appendix D.

NSUF is focused on providing access to unique and highly specialized nuclear research facilities and technical expertise to advance fundamental and applied nuclear energy technologies that crosscut a

range of NE topic areas. These technologies include, but are not limited to, (1) fuel and core materials, (2) structural materials and manufacturing technologies, and (3) sensor materials and active components. Separate effects or integral experimental testing focused on verification and validation of modeling and simulation topics that leverage high performance computing are encouraged.

Fuel and Core Materials: Proposals are sought for projects in the areas of fuels irradiation performance and combined effects of irradiation and environment on fuels and core materials, such as fuel cladding. Fuel types include, but are not limited to, light-water reactor accident tolerant fuels, oxide fuels, metallic fuels, TRISO-particle fuels, nuclear thermal propulsion reactor fuels, and new innovative fuel concepts. Additional topics of interest under this area include, but are not limited to, existing and innovative cladding materials such as chromium-coated zirconium alloys and silicon-carbide cladding and novel neutron-absorbing materials. Activities can be aimed at irradiation experiments (steady state or transient neutron, ion, and gamma) and post-irradiation examination that utilize NSUF capabilities to explore fundamental, novel, and applied aspects of fuel performance such as radiation damage, amorphization, fuel restructuring, species diffusion, fission product behavior, thermophysical properties, and mechanical properties.

Structural Materials and Manufacturing Methods: Proposals are sought in the areas of advanced structural materials for nuclear energy applications, novel or cost-effective manufacturing methods, and related topics that leverage NSUF irradiation and post-irradiation examination capabilities. For structural nuclear energy materials, areas of interest include, but are not limited to, the evaluation of materials degradation mechanisms and aging, fundamental or applied irradiation effects, and testing of other nuclear energy related materials. This topic also includes the irradiation and post-irradiation examination of innovative conventional, convergent, additive, and other advanced manufacturing technologies to support reductions in construction cost and schedule, and significant performance improvements.
Sensor Materials, Instrumentation, and Active Component Systems: Proposals are sought for irradiation testing and post-irradiation examination that support the development of advanced sensor materials, and the development of advanced instrumentation or measurement systems to enhance the long-term viability and competitiveness of the existing fleet, and to develop an advanced reactor pipeline, and to implement and maintain national strategic fuel cycle and supply chain infrastructure. For this topic, areas of interest include irradiation testing and post irradiation examination of sensor materials and candidate instrumentation systems. Proposed projects can include irradiations with in-situ monitoring or traditional irradiation and post-irradiation examination to address fundamental and applied technology gaps.

Across these crosscutting technologies, proposals that utilize artificial intelligence and data science tools to enable innovative solutions for post-irradiation examination and testing methodologies are encouraged.

B) Topic areas for U.S. University-led IRP Projects

IRP-1: GRAND CHALLENGE IRP – ACCELERATING Advanced **REACTOR DEVELOPMENT** and Deployment **(ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $3,000,000; NEST ELIGIBLE)**

NE's goal of demonstrating several advanced reactor types is a core aspect of unleashing American

IRP-1: GRAND CHALLENGE IRP – ACCELERATING Advanced REACTOR DEVELOPMENT and Deployment (ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $3,000,000; NEST ELIGIBLE)

energy at home and abroad. One of the primary challenges is reducing overall capital and operating and maintenance (O&M) costs while also de-risking the technologies for more rapid adoption by industry. NE solicits applications for this scope that take a holistic, multi-disciplinary approach to accelerating reactor deployment for specific reactor technologies. Applications can cover a wide variety of topics including innovative component, instrumentation, and fuel handling systems; design optimization including integrated systems or reducing the size of the core or number of components; technologies to reduce the cost and schedule for construction; siting infrastructure considerations for remote applications; development of advanced materials and manufacturing techniques, activities to accelerate advanced reactor licensing and development of AI/ML applications to improve plant technical, economic, and/or safety performance. Proposals that suggest innovative ideas for cost reduction or shortening the deployment timeline by developing a holistic, multi-faceted approach, including a focus on key technical needs areas, like nuclear economics, accelerated testing, and reactor/plant design expertise, are desired.

Proposals should clearly identify the challenge being addressed and how proposed activities will accelerate the development, demonstration, and future deployment of advanced reactor concepts.

IRP -2: GRAND CHALLENGE IRP: ARTIFICIAL INTELLIGENCE FOR MODELING OF DEEP GEOLOGICAL REPOSITORIES (ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $3,000,000)

Since 2010 the DOE Office of Nuclear Energy has developed many different models and variations of models related to the performance of anticipated future repositories. The assumptions that drive the behavior of the models are complex and open to wide interpretation.

In anticipation of a future United States deep geological repository (DGR) program, DOE is interested in the use and development of artificial intelligence (AI) models to enable DOE to rapidly model and simulate the behavior of a DGR in 2 of the main geological media in the United States, crystalline and argillite.

Further Considerations:

1. DOE will make available access to models and data related to crystalline and argillite.
2. DOE would prefer the university team to have a recognized industry partner with experience of modeling repository deep geological media.
3. DOE would prefer the university team to have an industry partner with AI experience.
4. DOE will make available support from a subject matter expert from a national laboratory 50% of a full-time equivalent.
5. We expect the university led team to put together a review process that allows for quarterly update meetings with DOE either virtually or face to face.
6. Presentations at the DOE annual review meeting.

Proposals should clearly and succinctly:

IRP -2: GRAND CHALLENGE IRP: ARTIFICIAL INTELLIGENCE FOR MODELING OF DEEP GEOLOGICAL REPOSITORIES (ELIGIBLE TO LEAD: UNIVERSITIES ONLY; UP TO 3 YEARS AND $3,000,000)

1. Lay out a technical approach to meet the intent of the request including proposed schedule and milestones.
2. Identify qualifications of the lead research organization.
3. Identify teaming partners qualifications and commitment to support the project.
4. Confirms the requirement for the quarterly meetings and how the guidance from the meetings will be incorporated into the program direction.

C) Topic areas for U.S. University-led, National Laboratory, or Industry-led NSUF Access Only (NSUF-2) Projects

NUCLEAR SCIENCE USER FACILITIES (NSUF) ACCESS ONLY (NSUF-2)

Applicants interested in utilizing Nuclear Science User Facilities (NSUF) capabilities only should submit under this topic areas. **This topic does not provide R&D support**. Proposals with NSUF access can include ion, neutron, and gamma irradiation, x-ray synchrotron beam or neutron beam interrogation, post-irradiation examination, advanced materials characterization, and high- performance computing. Applicants are encouraged to contact the NSUF directly with questions prior to submitting and review the full list of NSUF capabilities at nsuf.inl.gov. In this topic area, NSUF access can be requested by university, industry, and national laboratory led projects. NSUF readiness requirements are provided in Appendix D.

NSUF is focused on providing access to unique and highly specialized nuclear research facilities and technical expertise to advance fundamental and applied nuclear energy technologies that crosscut a range of NE topic areas. These technologies include, but are not limited to, (1) fuel and core materials, (2) structural materials and manufacturing technologies, and (3) sensor materials and active components. Separate effects or integral experimental testing focused on verification and validation of modeling and simulation topics that leverage high performance computing are encouraged.

Fuel and Core Materials: Proposals are sought for projects in the areas of fuels irradiation performance and combined effects of irradiation and environment on fuels and core materials, such as fuel cladding. Fuel types include, but are not limited to, light-water reactor accident tolerant fuels, oxide fuels, metallic fuels, TRISO-particle fuels, nuclear thermal propulsion reactor fuels, and new innovative fuel concepts. Additional topics of interest under this area include, but are not limited to, existing and innovative cladding materials such as chromium-coated zirconium alloys and silicon-carbide cladding and novel neutron- absorbing materials. Activities can be aimed at irradiation experiments (steady state or transient neutron, ion, and gamma) and post-irradiation examination that utilize NSUF capabilities to explore fundamental, novel, and applied aspects of fuel performance such as radiation damage, amorphization, fuel restructuring, species diffusion, fission product behavior, thermophysical properties, and mechanical properties.

Structural Materials and Manufacturing Methods: Proposals are sought in the areas of advanced structural materials for nuclear energy applications, novel or cost-effective manufacturing methods, and related topics that leverage NSUF irradiation and post-irradiation examination capabilities. For structural nuclear energy materials, areas of interest include, but are not limited to, the evaluation of materials degradation mechanisms and aging, fundamental or applied irradiation effects, and testing of other nuclear energy related materials. This topic also includes the irradiation and post-irradiation examination of innovative conventional, convergent, additive, and other advanced manufacturing technologies to support reductions in construction cost and schedule, and significant performance improvements.

Sensor Materials, Instrumentation, and Active Component Systems: Proposals are sought for irradiation testing and post-irradiation examination that support the development of advanced sensor materials, and the development of advanced instrumentation or measurement systems to enhance the long-term viability and competitiveness of the existing fleet, and to develop an advanced reactor pipeline, and to implement and maintain national strategic fuel cycle and supply chain infrastructure. For this topic, areas of interest include irradiation testing with in-situ monitoring or traditional irradiation and post irradiation examination of sensor materials and cand include irradiations and post-irradiation examination to address fundamental and applied technology gaps.

Across these crosscutting technologies, proposals that utilize artificial intelligence and data science tools to enable innovative solutions for post-irradiation examination and testing methodologies are encouraged.

D) Accessing Nuclear Science User Facilities

As previously described in this document, the NSUF provides access, at no cost to the user, to specialized capabilities including material test reactors, ion irradiation, post-irradiation examination, beamlines, and computational resources. Access to these facilities includes the support of the expert technical staff to ensure that the applicant is able to successfully complete their user access research. Requesting NSUF access funding is more complex than requesting R&D funding through this NOFO. Figure D-1 depicts the process for requesting NSUF access. Note that NSUF Rapid Turnaround Experiments (RTEs) are not part of this NOFO, for information on RTEs see NSUF.inl.gov.

Role of NSUF Technical Lead

The applicant is required to submit a NSUF Letter of Intent (LOI) and Pre-Application to apply for the NOFO. The applicant is expected to work with the NSUF Technical Lead(s) to prepare the Pre-Application. If invited to submit a Full Application, the applicant and NSUF Technical Lead(s) will work together to develop the application and define the scope of the application.
Developing a successful application for NSUF access requires effort from the applicant, as well as the NSUF Technical Leads who should be included at the earliest possible date. Technical Leads are listed as contacts at NSUF.inl.gov/Page/Partners. The NSUF Program Office assigns Technical Leads and subsequently informs the applicant. If NSUF capabilities are requested at multiple institutions, then multiple Technical Leads will support the application. Because NSUF Technical Leads are an integral part of the application, it is expected that they be listed as Other Collaborators or Personnel in the Pre-Application and in the Full Application.

NSUF Readiness Review Considerations

Project statements of work are submitted with both the Pre-Application and the Full Application. A detailed description of the readiness of the project is required for NSUF-1 and NSUF-2 access requests and must be included in the statement of work. Refer to the following section on NSUF readiness to ensure that all elements, as they pertain to your proposal, are included in the pre-application or full application statements of work.

The following items will be reviewed by NSUF program office staff during the readiness reviews to ensure that the project and specimens are ready for the NSUF work to proceed without further development. Applicants are strongly encouraged to address all of these items **prior to submitting a Pre-Application** requesting NSUF access. Missing or insufficient information on any of these topics may cause an application to be rejected on readiness grounds. NSUF readiness examines the following aspects:

- Fabrication techniques, processes, and methods on the materials to be studied has been previously established. ***Applicant action***: Show evidence that the project team has successfully executed the proposed fabrication techniques, processes, and methods on the materials to be studied or a similar material.
- Basic thermal, chemical, and physical properties of the proposed material is known to support irradiation design activities. ***Applicant action***: Show evidence that the materials of interest have been fabricated and basic thermal, chemical, and physical properties are known.
- Description on the availability of the fuel, material, or sensor material. ***Applicant action***: Provide a plan for delivery of fuel, material, or sensors for NSUF access. Specific considerations include: (1) Description for when the specimens will be available for irradiation (e.g., neutron, ion, and gamma irradiations) and PIE-only awards. For most applicants, the material should be supplied to NSUF by approximately four months of the project start date. (2) The source of the specimens/materials. For fuels and materials residing in the NSUF NFML, identify the specific specimen(s). For previously irradiated fuels and materials not residing in the NSUF NFML, the location (as specific as possible), condition, provenience, pedigree, radioactivity levels isotopic content, material composition, configuration, ownership, and any other available information that will be needed to ship and/or prepare the fuel or material for examination must be identified. For projects utilizing fuels or materials coming from an on-going irradiation, the current irradiation schedule at time of review will be taken into consideration for determining readiness of the project. (3) Ownership of the materials/specimens. For any fuels or materials supplied for the purpose of neutron irradiation, the applicant must own and have authority to transfer ownership and title (free of any liens, claims of ownership, or other liabilities) to DOE. For fuels or materials coming from other DOE programs (not NSUF), a statement of program commitment is required. If invited to submit a Full Application, a statement that includes concurrence from the appropriate DOE federal program manager or national technical director is to be attached in the Pre-Application in the section titled Post Submission Attachments.

NSUF User Agreement

Note: Access to NSUF capabilities will require agreement and final signature to the User Agreement. **The terms and conditions of the User Agreement are non-negotiable, and failure to accept the terms and conditions of the User Agreement will terminate processing and review of the NSUF applications.**

- To ensure compliance throughout the application review process, applicants must indicate in the LOI and Full Application submission that the User Agreement has been read, understood, and the terms and conditions are accepted.
- Further, submission of a Pre-Application and a Full Application indicates the applicant will comply with and agree to the terms and conditions of the User Agreement.
- Upon award of an NSUF supported project, the User Agreement must be signed before activities begin on the project. Failure to sign the non-negotiable User Agreement within 30 days of receipt of the User Agreement may result in cancellation of an awarded project.

NSUF Statement of Work Considerations

For all applications, the NSUF Technical Lead(s) will work with the applicant to define the scope in the form of a Statement of Work (SOW). A Pre-Application SOW will be submitted as a "post submission attachment" in the Pre-Application. If invited to submit a Full Application, a Full Application SOW will be submitted prior to the Full Application as a "post submission attachment" in the Pre-Application. At a minimum, the SOW will include the following (as applicable):

- Facilities and equipment required to conduct the experiment;
- Specific requirements for specimen acquisition (e.g., material location, material condition, and fabrication or preparation requirements);
- Specific requirements for irradiation or beam-time (e.g., neutron, gamma or ion beam energy spectrum, target temperature, flux and fluence [or burn-up/dpa] for each specimen, in-pile instrumentation, etc.) including a detailed test matrix;
- Specific requirements for post-irradiation examination (PIE) of each specimen (e.g., visual examination, dimensional examinations, tensile testing, radiography, microscopy, etc.) including a detailed test matrix; and
- Description of the readiness of the project.

The Pre-Application and Full Application SOW (Statement of Work Template) will be utilized by the NSUF facility technical staff to develop an execution plan and cost. Execution Plan details may be included in the Full Application SOW at the discretion of the NSUF Technical Lead and typically addresses the following elements (as applicable):

- Concept for the irradiation vehicle including fabrication and assembly plans;
- Irradiation position and duration (if known);
- Experiment shipping;
- Disassembling and cataloging the experiment;
- Specimen preparation and shipping;
- Specimen examination details;
- Waste disposal; and
- Resource loaded schedule.

NSUF Access Values will be entered in the corresponding data field in the Full Application by a NEUP.gov website administrator. This occurs after Full Applications are submitted.
The Full Application SOW must contain a summary of the proposed activity, suitable for dissemination to the public. It should be a self-contained document that identifies the following: the name of the applicant; the name of the PI(s); the project title; a list of major deliverables; the scope and objectives of the project; a description of the project, including major tasks (phases, planned approach, etc.) and methods to be employed; the potential impact of the project (i.e.,

benefits, outcomes); and the names of key/senior personnel (for collaborative projects). This document must not include any proprietary or sensitive business information as it will be available to the public after awards are made and the project is completed.

NSUF Quality Assurance Requirements

Irradiation of materials in test reactors requires additional rigor and quality assurance requirements beyond those described in other sections of this NOFO. Specific requirements will depend on the reactor license, the irradiation vehicle design, and specimen constituents. NSUF Technical leads will assist the PI in understanding the specific requirements early in the process.

Budget Development for NSUF Applications

Applicants for NSUF Access Only projects that do not have an R&D funding component (NSUF-2 topic area) are responsible for costs described below. A letter of commitment from an appropriate authority is required that explains how the applicant will pay for costs similar to:

- Travel costs to NSUF facilities for facility access training, technical meetings, examinations, experiment loading, etc.;
- Applicant salary support;
- Graduate student support;
- Post-doctoral or other researcher support; and
- Materials and supplies support at the PI's work location.
- To append the Letter of Commitment: 1) Find the submitted Pre-Application in the "My Applications" section of the submission website; 2) Open the submitted Pre-Application by using the 'pencil' icon; 3) Scroll to the bottom of the application form; and 4) Click "Attach File" on the "Post Submission Attachment" section and attach the Letter of Commitment.

  Name File: 2026 Letter of Commitment "Insert ID #"

Cancellation of an Award

If the project or any part of the project falls two years or more behind the schedule established in the Full Application SOW, DOE reserves the right to cancel the project or any part of the project without concurrence of the Principal Investigator.

NSUF Nuclear Fuels and Materials Library

The NSUF Nuclear Fuels and Materials Library (NFML), which is owned by NE and curated by the NSUF, is a collection of specialized information and nuclear fuel and material specimens from past and ongoing neutron irradiation test campaigns, as well as real-world components retrieved from decommissioned power reactors, and donations from other sources. The NFML database can be accessed at NSUF.inl.gov. To continue the expansion of the NFML, any specimens created as the result of an awarded NSUF neutron irradiation project will be added to the NFML, including unirradiated archive materials. The Principal Investigator (PI) will be given exclusive rights to the specimens for a three-year period of PIE following completion of the neutron irradiation portion of the project. The specimens will be listed as Not Available in the NFML throughout the three-year exclusivity period. To populate the NFML, the NSUF program office may recommend irradiating a larger number of specimens than required for an awarded project. PIs of all future awarded applications requesting specimens from previously awarded neutron irradiation tests are encouraged to contact the original PI(s) for potential collaboration. Although collaboration with the original PI(s) is encouraged, permission from the original PI(s) to use previously generated materials that are currently Available in the NFML is not required. It is strongly

suggested that CINR NOFO applicants contact the NFML Coordinator, listed at NSUF.inl.gov/Home/Staff, to confirm availability of specimens to be requested.

General Process for NSUF applications (Figure D-1)