

NOTICE OF FUNDING OPPORTUNITY (FOA): DE-FOA-0003180

**DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
OFFICE OF ACQUISITION MANAGEMENT**



“CONSORTIA FOR NUCLEAR NONPROLIFERATION”

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PART I. FULL TEXT OF ANNOUNCEMENT

SECTION I: Funding Opportunity Description

Background

The direct outcome of this program is the development of a diverse and highly talented cadre of professionals with skill sets to support critical nonproliferation missions in early proliferation detection, nuclear security, and cross cutting areas outlined in the technical scope below. These professionals will have careers as scientists, engineers, technicians, operational personnel, and intelligence professionals, among others, and will be leaders in nuclear nonproliferation, nuclear arms control, nuclear incident response, nuclear intelligence activities, nuclear energy, and other nuclear-related fields. These professionals are expected to benefit academia, private industry, and several U.S. government agencies, including Energy, State, Defense, Homeland Security, Justice, and the Intelligence Community.

Summary

The mission of the U.S. Department of Energy, National Nuclear Security Administration (DOE/NNSA), Office of Defense Nuclear Nonproliferation Research and Development (DNN R&D) is to drive innovative research that develops technologies and expertise to detect foreign nuclear proliferation activities and produces technologies for integration into operational systems by leveraging capabilities at the DOE Laboratories, Plants, and Other Field Sites, as well as at universities and within private industry. DNN R&D supports U.S. national and nuclear security objectives in reducing global nuclear security threats through the innovation of unilateral and multi-lateral technical capabilities to detect, identify, and characterize: 1) foreign nuclear weapons development activities; 2) illicit diversion of special nuclear materials; 3) nuclear explosions globally; and 4) stewarding U.S. technical capabilities in nuclear nonproliferation.

Throughout this document the term, DOE Laboratories, Plants, and Other Field Sites, is used to collectively refer to DOE Laboratories, Plants, and Other Field Sites, and complexes. For DNN R&D, the role of Institutions of Higher Education (as defined in Section III) is to innovate, develop, and prove some of the most challenging basic aspects of new technology and methods in coordination with the DOE Laboratories, Plants, and Other Field Sites, which can in turn fulfill their unique role to perform mission-specific research and development that improves on capabilities until they are either adopted by operational enterprises or transitioned into private industry for commercialization. Transparency and effectively linking the roles of these IHE and DOE Laboratories, Plants, and Other Field Sites represents the core of how DNN R&D proposes to meet its objectives.

The intent of this Funding Opportunity Announcement (FOA) is to award two (2) five-year cooperative agreements to consortia consisting of accredited IHEs to provide the opportunity to receive and administer Federal financial assistance funds for student and faculty research, fellowships, and scholarship funding awarded by DOE/NNSA, DNN R&D.

Each cooperative agreement will be awarded to a consortium of IHEs which will include the participation of DOE Laboratories, Plants, and Other Field Sites as consortium-member(s). Individual IHEs consortium-member shall make specific contributions and shall receive specified portions of the funding.

The consortium may include student and research fellows and must have a long-term objective of building expertise in scientific disciplines directly relevant to nuclear nonproliferation. Research results should be incorporated readily into IHE curricula. Students, faculty, and researchers must be able to work unencumbered while moving across organizational and bureaucratic boundaries of the academic and governmental facilities engaged in the consortium, while properly protecting

critical information and materials. The consortium should establish reciprocal DOE Laboratories, Plants, and Other Field Sites arrangements between the lead IHE and other IHEs as well as relationships with appropriate DOE Laboratories, Plants, and Other Field Sites (See Attachment 2).

Integration with DNN R&D Needs

Integration of small businesses and Institute of Higher Education's academicians along with the unique facilities and scientific skills of NNSA and Department of Energies' national laboratories, the research and Development efforts provide the technical base for national and homeland security agencies to meet their nonproliferation, counterproliferation, and counterterrorism responsibilities.

Through the required management plan and structure for the proposed consortium, the mechanisms that link the support responsiveness to emerging research direction and needs, sponsored research at the DOE National Laboratories conducted by small businesses and the academic community are leveraged to ensure the advancement of research. New research results and challenges continually emerge from Defense Nuclear Nonproliferation (DNN), Research and Development (R&D) needs; thus, the management plan must detail innovative ideas with formal mechanisms for leveraging these capabilities. Where topically appropriate, DNN R&D encourages collaboration and innovative thinking across all nuclear science disciplines to develop technologies and approaches that will advance its mission.

Recipients and subrecipients must expect that DNN R&D management will be an active partner in the award. Therefore, the recipients and subrecipients are expected to participate in DNN R&D's annual University Program Review (UPR). In addition to the participation, periodic assessments are conducted by DNN R&D to verify progress towards meeting the proposed topical/focus areas and applicable milestones. These assessments focus on but are not limited to the IHE's effective and efficient use of provided resources; maintaining nonproliferation-related disciplines through research and development; and conducting work pertinent to current and emerging nonproliferation activities.

Technical Scope

The Defense Nuclear Nonproliferation, Research & Development (DNN R&D) Program seeks to establish two university consortia to conduct unclassified research in support of nuclear nonproliferation. DNN R&D's research areas are focused on the objectives listed below. Successful proposals will identify a well-structured team of universities positioned to partner with the DOE Laboratories, Plants, and Other Field Sites to conduct research in support of at least three of these objectives; however, it is not recommended that the proposals incorporate every objective, as that would likely spread resources too thinly to accomplish meaningful DNN R&D. Ideally, the proposals will connect the chosen research objectives by a common thread and are well-matched to research capabilities that exist at the participating universities and partner laboratories.

- Develop new technologies and methods to detect, locate, and characterize production of special nuclear material and other materials, such as tritium. The fate and transport in the environment of relevant effluents is an important consideration.
- Develop new technologies and methods for nuclear incident response.
- Develop new methods and technologies to safeguard nuclear material and detect diversion of it from civilian nuclear power purposes.
- Develop new technologies and methods to monitor and verify potential future arms control treaties, with a focus on nuclear warheads and nuclear material production. Technologies should place an emphasis on achieving high-confidence verification while protecting sensitive information about weapons or facilities.
- Develop new and novel radiation detection materials, techniques, and algorithms.

- Develop new remote sensing tools and applications in support of nuclear nonproliferation. DNN R&D defines remote sensing as sensing at distances greater than 100 meters, both terrestrial and space based.
- Develop new or improved laboratory measurement capabilities of environmental samples, both gas and particulate, in support of nuclear nonproliferation.
- Develop and maintain nuclear data investments to support relevant nuclear data measurements, theoretical work, and evaluation efforts. Perform targeted measurements of nuclear data quantities that address uncertainty drivers for specific nonproliferation applications.
- Develop data science, machine learning, and artificial intelligence methods and applications in support of these objectives. This also includes the development of digital twins relevant to nuclear nonproliferation as well as the incorporation of computer vision and augmented/virtual reality capabilities to enhance mission planning and effectiveness.
- Develop solutions to future nuclear nonproliferation priorities by identifying and leveraging or countering emerging and disruptive technologies.

The selected recipient of the award (lead university) will be the lead organization and the prime award recipient and will be held responsible for managing the entire scope, schedule, and cost of the project, to include all reporting, at a minimum:

- Propose at a minimum, three other university partners who meet the above definition of “university” as consortium member. An integrated approach to the work will be essential in tackling the proposed tasks under the consortium. The lead university is discouraged from including an overly large number of loosely connected university partners.
- Propose one or more DOE Laboratories, Plants, and Other Field Sites as consortium members in accordance with the “Other Eligibility Requirements” under Section III below. It is essential that the IHEs engage DOE National Laboratory partners early in proposal development as to forge a connection in collaborating on future work and having unique and innovative approaches to accomplishing proposed tasks.

This cooperative agreement will ONLY provide funding to the university members of the consortia. The DOE National Laboratory members will leverage existing DNN R&D funding to support involvement – including any mentoring – to the extent it delivers mutual benefit. DNN R&D will provide management consortia support funds directly to DOE National Laboratory team members (as done for previous consortia awards) to assist in managing the laboratory-University interactions, managing:

- **IHE Credit for Student:** The lead IHE and consortium members should establish a program to acknowledge students who participate in DOE National Laboratory stints and working with DOE National Laboratory mentors. This can be done at the discretion of the IHE; for example, by providing a one semester credit or internship for that student.
- **Eligible Students for Direct Benefit:** Students who are directly funded and/or provided benefit by assisting with research and associated projects should be in their junior year or beyond for undergraduate academic studies or a graduate student who is pursuing studies toward a subject pertaining to the topic(s) being supported by their group. The program will periodically request corroborating eligibility data when assembling metrics and various internal reports.
- **DOE National Laboratory Rotations:** Postdoctoral (U.S. citizens and permanent residents) will be expected to conduct a lab/site/complex rotation with one of the partner DOE Laboratories, Plants, and Other Field Sites. A reasonable number of professors should expect to participate via a short detail, 4-8 weeks, at the lab with their student(s). The intent is to motivate professor and student teams in forging new collaborative relationships with the DOE Laboratories, Plants, and Other Field Sites and provide access to varying degrees of professional knowledge, application, and equipment. Universities should plan accordingly and budget to participate in these rotations.

Universities will need to engage with DOE Laboratories, Plants, and Other Field Sites as early as possible in their application

process. Universities are encouraged to engage with a moderate number of well-considered DOE Laboratories, Plants, and Other Field Site partners who've really thought through their participation rather than having labs issue generic partnership letters.

Please note that the below sections and attachments are critical and must be reviewed to ensure that the application submitted by the prime applicant(s) has met the requirements. Lack of double-checking the application may cause the entire application to be rejected. Please ensure that you review your submission prior to the due date to ensure all components have been submitted and are correct.

- **Section IV of the APPLICATION AND SUBMISSION INFORMATION** contains the Merit Review Criterion. It provides information related to formatting for each of the Merit Review Criterion.
- **Section V of the APPLICATION REVIEW INFORMATION** contains the criterion that will be used for passing the review by which all applications will be evaluated in accordance with the Merit Review Criteria.
 - **Attachment 1** contains the applicant and subapplicant documentation requirements and page limitations.
 - **Attachment 2** contains a list and point of contacts of all DOE Laboratories, Plants, and Other Field Sites.

SECTION II. Award Information

Type of Award and Instrument

The type of instrument that is anticipated to be utilized by DOE/NNSA is a cooperative agreement. As per 2 CFR 200.1, a Cooperative Agreement means a legal instrument of financial assistance between a Federal awarding agency and a recipient or a pass-through entity and a subrecipient that, consistent with [31 U.S.C. 6302–6305](#):

- Is used to enter into a relationship whereby the principal purpose of which is to transfer anything of value to carry out a public purpose authorized by a law of the United States (see [31 U.S.C. 6101\(3\)](#)); and not to acquire property or services for the Federal Government or pass-through entity's direct benefit or use;
- Is distinguished from a grant in that it provides for substantial involvement of the Federal awarding agency in carrying out the activity contemplated by the Federal award.
- The term does not include: 1) A cooperative research and development agreement as defined in [15 U.S.C. 3710a](#); or 2) an Agreement that provides only: a) Direct United States Government cash assistance to an individual; b) a subsidy; c) a loan; d) a loan guarantee; or e) insurance.
- Information may be found at [https://www.ecfr.gov/current/title-2/part-200/section-200.1#p-200.1\(Cooperative%20agreement\)](https://www.ecfr.gov/current/title-2/part-200/section-200.1#p-200.1(Cooperative%20agreement)).

Maximum and Minimum Award Size

The ceiling amount of \$25,000,000.00 per award is expected to be available contingent upon the availability of funds for all five years.

Estimated Funding

Approximately \$5 million per award per year is expected to be available for awards under this announcement, contingent upon the availability of appropriated funds.

Expected Number of Awards

DOE/NNSA anticipates making two (2) awards under this announcement.

Anticipated Award Size

DOE/NNSA may fund \$25 million per award under this FOA for the awards, contingent upon the availability of appropriated Federal government funds for all five years.

Period of Performance

DOE/NNSA anticipates notifying the applicants selected for award by **June 06, 2024**. The awards are expected to start on **March 14, 2025**, depending on availability of Federal government funds. DOE/NNSA anticipates making awards that will run no longer than 5 years.

Type of Application

DOE/NNSA will accept new and renewal applications under this announcement. Renewal applications are requests for additional funding for a period after that provided by a current award. Renewal applications compete with all other applications and must be submitted by the established due date/deadline. In preparing a renewal application, applicants should assume that reviewers will not have access to previous applications. [The application should be developed as fully and as thorough as is possible and as though the applicant is applying for the first time.](#) The application must include all the information required for a new project as well as include within the project narrative section a discussion of the results from previous awards and whether there is a current funded award currently in process.

SECTION III. Eligibility Information

Eligible Applicants

Definition

In accordance with [2 CFR 910.126\(b\)](#), Competition eligibility for award is restricted to domestic Institutes of Higher Education (IHE) (as defined below) because the purpose of the DNN R&D University Program is to support university research and development. IHEs provide a different, more fundamental, theoretical, innovative perspective on research and development than that provided by the laboratories or industry. IHEs are also the best sources for innovative, long-term ideas because of their inherent close ties to new developments in the basic sciences, their ability to construct cross-disciplinary teams, and their ability to test new concepts and ideas with theoretical and experimental rigor. Further, the support provided to IHEs will help foster a recruitment pipeline of future nuclear non-proliferation and other nuclear security professionals who will contribute significantly to the national security of the United States.

Institutions of Higher Education is defined at <https://www.govinfo.gov/link/uscode/20/1001> (downloaded document).

For this announcement, an IHE is defined as:

- A public or private nonprofit educational institution that —
 - Is in a State.
 - Admits as regular students only persons who —
 - Have a high school diploma.
 - Have the recognized equivalent of a high school diploma; or
 - Are beyond the age of compulsory school attendance in the State in which the institution is physically located.
 - Is legally authorized to provide an educational program beyond secondary education in the State in which the institution is physically located.
 - Provides an educational program —
 - For which it awards an associate, baccalaureate, graduate, or professional degree.
 - That is at least a two-academic-year program acceptable for full credit toward a baccalaureate degree; or
 - That is at least a one academic year training program that leads to a certificate, or other non-degree recognized credential, and prepares students for gainful employment in a recognized occupation; and
 - May provide a comprehensive transition and postsecondary program, as described in [eCFR :: 34 CFR Part 668 Subpart O -- Financial Assistance for Students With Intellectual Disabilities](#); and is an accredited or pre-accredited entity; or approved by state agency listed in the FEDERAL REGISTER in accordance with [eCFR :: 34 CFR Part 603 -- Secretary's Recognition Procedures for State Agencies](#), if the institution is a public postsecondary vocational educational institution that seeks to participate only in Federal student assistance programs.

The following types of Higher Education Institutions are always encouraged to apply for DOE/NNSA support as Public or Private Institutions of Higher Education:

- Hispanic-serving Institutions
- Historically Black Colleges and Universities (HBCUs)
- Tribally Controlled Colleges and Universities (TCCUs)
- Alaska Native and Native Hawaiian Serving Institutions

Eligible Requirements

To be considered for evaluation, an applicant's submission must meet the criteria set forth below. If the application to DOE/NNSA does not meet these initial requirements, it will be removed from further consideration and ineligible for award. Applicants should submit packages in advance of the deadline to ensure there is time to address and make corrections if needed. No exceptions will be made to the deadline.

Restricted Eligibility

The DNN R&D University Program seeks the long-term development of expertise in academic fields supporting nuclear nonproliferation. Furthermore, one of DNN R&D's goals within this program is to support a pipeline of talent that is well-prepared for nuclear nonproliferation and arms control careers in the DOE Laboratories, Plants, and Other Field Sites and U.S. government. These careers require the ability to attain and maintain a national security clearance. As such, it is important to restrict the eligibility for Senior/Key Persons, such as Principal Investigators, to U.S. citizens or permanent residents. Several of the DOE/NNSA goals are not achievable by foreign nationals.

In conformity with the Guidance on Department of Energy ([Guidance on Department of Energy Order 142.3A \(lbl.gov\)](#)), applicants selected for award are required to submit and complete a form prior to award whereby the Principal Investigator and Co-Principal Investigator(s) are U.S. citizens or permanent residents (refer to "Research & Related Personal Data" form at [R&R Family | GRANTS.GOV](#), and resubmit as needed (example: Replacement of a Principal Investigator or Co-Principal Investigator). Any individual person receiving funding support under this cooperative agreement must be a U.S. Person, defined as an individual that is a citizen of the United States or an alien lawfully admitted for permanent residence. The FOA further restricts the eligibility of scholarships and fellowships (Post-doctoral Fellows, graduate students, and undergraduate students) to U.S. citizens or permanent residents. Non-U.S. Persons are prohibited from receiving direct government or cost share funding under the cooperative agreement.

A "U.S. Person" is defined as an individual that is a citizen of the United States or an alien lawfully admitted for permanent residence.

Adjunct professors, visiting professors, and post-doctoral fellows are ineligible to be PIs. Investigators from foreign universities or academic institutions, irrespective of citizenship, are ineligible to be PIs.

Such individuals may receive funding under a subaward if the Principal Investigator requests and receives written permission for such funding from the NA-20 PM. There may be security restrictions on participation by foreign nationals at certain facilities and conferences, in accordance with applicable U.S. Department of Energy Security Policy, Directives, Regulations, or Requirements.

All persons receiving funding or direct involvement in the activities supported under this cooperative agreement must be a U.S. Person or the Director/Principal Investigator must request and receive written permission for such funding from the program official of NA-20. Requests for addition of non-US-persons is required throughout the period of award.

DOE Laboratories, Plants, and Other Field Site Requirements

DOE Laboratories, Plants, and Other Field Sites (hereinafter referred to as DOE Laboratories) are not eligible to compete as the prime or subapplicant under this FOA; however, each lead IHE application must propose one or more DOE Laboratories as collaborators subject to the below guidelines. See Attachment 2 for a list of DOE Laboratories.

- **Authorization for DOE Laboratories, Plants, and Other Field Sites' Participation:** [The cognizant Contracting Officer for the DOE Laboratories must authorize in writing the participation of the DOE Laboratories on the proposed project and this authorization is requested at selection and must be submitted upon request.](#) However, collaboration letters from the collaborating employee must be submitted with the application to include a statement that no grant funds will be provided to the lab and/or site/complex from the awarded cooperative agreement.

The following language is acceptable for the cognizant Contracting Officer authorization and may be used when selected and upon request: *"Authorization is granted for the [Name] Laboratory and/or Site/Complex to participate in the proposed project. The work proposed for the laboratory and/or Site/Complex is consistent with or complimentary to the missions of the laboratory and/or site/complex, will not adversely impact execution of the DOE/NNSA assigned programs at the laboratory and/or site/complex, and will not place the laboratory and/or site/complex in direct competition with the domestic private sector."*

- **DOE Laboratories, Plants, and Other Field Sites:** The portion of the effort to be performed by all DOE Laboratories' collaborators in aggregate shall not approach or exceed 50% of the total effort. In addition, the DOE Laboratories, Plants, and Other Field Site effort should be well thought out rather than having all labs and/or site/complexes issue generic partnership letters to all university applicants. The intent is that the DOE Laboratories may not play a role comprising most of the teaming arrangement and work effort.

A DOE Laboratories is to provide a Draft of the Authorization discussed above and a Field Work Proposal in accordance with the Work Authorization System or [NNSA SD 412.1](#), Work Authorizations as applicable, Work Authorization System with the lead university consortium application, and a [Final to be submitted 30-45 days from notice of selection](#).

Funding for any work being done by a DOE Laboratories will be funded directly by the program office. This funding will be transmitted to the laboratory via an internal Work Authorization (WA)/Implementation Plan (IP) process. The amount of funds that a laboratory uses in teaming with the IHE will not be factored into the IHE's total award amount.

Value/Funding: The value of, and funding for, the DOE Laboratories' portion of the work should not be included in the prime IHEs proposed budget.

- DOE/NNSA will examine the continuity and consistency of program objectives and assure that the objectives are responsive to all disciplines of nuclear science and security needs of DOE/NNSA and the nation. DOE/NNSA members will include the Program Manager and other senior DOE/NNSA officials as required.
- The Proliferation Detection Office, as a part of DNN R&D, will directly fund the DOE Laboratories to support the consortium. The funding will be resourced in accordance with a Life Cycle Plan (LCP) to be submitted by each participating DOE National Laboratory. The consortia can freely discuss participation with their DOE Laboratory partners, but the Program Office retains control of funding and scope.

DOE Laboratories, Plants, and Other Field Sites: The' Roles and Responsibilities

- The DOE Laboratories participating as a collaborator, will be represented and their participation facilitates coordination of research being conducted by the laboratories with that of the consortium.
- As laboratory employees may rotate through the IHE to aid in research and assist postdoctoral, the laboratory will cover their own associated fees that may include per diem, lodging, and travel expenses.
- Access to lab equipment, mentors, and facilities will be coordinated by the laboratory and a listed point of contact and/or project coordinator at that site.
- The DOE Laboratories are responsible for the cost of equipment or facility usage incurred by Consortia's Postdoctoral (typically a Ph.D.), Graduate Fellows, or Interns, except for reimbursement for use of facilities that require "user fees" in accordance with the labs policies and procedures.
- Lead IHE and their university consortium members (subrecipients) should encourage students to take advantage of opportunities to spend time at the DOE Laboratories participate in on-site practicums, engage with National Laboratory scientists, and participate in symposia.
- Lead IHE is responsible for ensuring their university consortium members (subrecipients) supply necessary information to allow for cost accruals and report submission by the end of each month.

The following roles and responsibilities are not all-inclusive but are being highlighted to better define the expectations of participant organizations. Upon selection, the following will be added to the consortium's award.

DOE/NNSA Role and Responsibilities

- DOE/NNSA will participate in overall program management of the Consortium and is primarily represented by the DOE/NNSA Program Manager. The Program Manager coordinates the activities of IHE with Headquarters and the Grants Officer.
- The Program Manager reviews all deliverables and reviews/recommends approval of any other changes on the Cooperative Agreement to the Grant Officer. The Program Manager also reviews, recommends, and submits a Purchase Requisition (PR) to the Contracting Officer for annual incremental funding on the Cooperative Agreement and assures orderly progression of work from year-to-year. This process is the Continuation Application and is in the Terms and Conditions of the Cooperative Agreement.

Consortia Role and Responsibilities

- As consortia professor/student teams may detail to a laboratory and/or site/complex collaborator for forging new relationships and conducting research, the IHE will cover their own associated fee that may include stipends, tuition, per diem, lodging and travel expenses.
- Access to the IHE equipment, colleagues and students, and facilities will be coordinated by the IHE and a listed point of contact and/or Principal Investigator at that site.

Responsibility of Successful Applicant (Lead IHE): The applicant will be the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues, including but not limited to, disputes and claims arising out of any agreement between the applicant and the DOE Laboratories, Plants, and Other Field Sites and other consortium members.

SECTION IV. Application and Submission

Write Your Application First

The following guidance may assist in developing a strong application that allows reviewers to better evaluate the science and merit of your proposal. This page provides tips for demonstrating to reviewers and the staff of DNN R&D the high quality of the personnel involved in your project and documenting resources and institutional support of the project. We provide information for new investigators, as well.

Though the advice provided is relevant for all research grants, it is general in nature and geared toward this DOE/NNSA Research Project. The tips should not replace your organization's internal guidance, specific advice provided by DOE/NNSA DNN R&D program or grants management staff, or instructions found in the funding opportunity announcement found the relevant information in **Attachment 1. Application Submission Requirements and Information.**

- Use the instructions in the notice of funding opportunity in conjunction with the Grants.gov Workspace to prepare your application. If instructions conflict, follow the funding opportunity announcement instructions.
- Pay attention to notices posted in the FOA. Notices may highlight topics of special interest to DOE/NNSA or update key aspects of funding opportunities. Guidance included in notices supersedes guidance in the funding opportunity announcement. Having a FedConnect account allows you to review questions/answers and other information posted by the program official and/or grant officer.
- Submit the application in response to this specific funding opportunity especially if you are applying for funding notice **DE-FOA-0003180**. Do not confuse your application to this funding opportunity with other applications you may be submitting at the same time.
- There is not a generic application form package that can be downloaded and used for all grant application submissions. You must use the application form package associated with the funding opportunity to which you are applying. Access the opportunity-specific form package through the Grants.gov Workspace.
- Make sure that the DOE/NNSA DNN R&D Office that might be interested in your research is listed as a participating organization in the funding opportunity. Notices of special interest may identify DOE/NNSA Programs participating in the notice initiative that are not listed in the funding opportunity used for submission.
- Return to the funding opportunity to check the Related Notices section before submission to ensure you are in line with the most recent guidance. FAQs are posted often and amendments to the funding opportunity may be posted daily. Note it is important to be registered with FedConnect as this is where you will find information related to postings and/or modifications to this FOA.
- Pay particular attention to the review criteria and write your application keeping these review criteria in mind.

What is in a Grant Opportunity? Every funding opportunity contain a range of information that is spread across the header and four tabs on the View Grant Opportunity page. At the top of the View Grant Opportunity page, users will find two buttons: Apply and Subscribe.

Required Registrations

Applicant Organizations

Applicant organizations must complete and maintain the following registrations as described in the SF424 (R&R) Application Guide to be eligible to apply for or receive an award. All registrations must be completed prior to the application being submitted. Registration can take 6 weeks or more, so applicants should begin the registration process as soon as possible. Failure to complete registrations in advance of a due date is not a valid reason for a late submission.

Registrations include the System for Award Management (SAM), FedConnect, and Grants.gov.

Eligible Individuals

(Program Directors/Principal Investigators (PD(s)/PI(s)))

Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the Program Director(s)/Principal Investigator(s) (PD(s)/PI(s)) is/are invited to work with their organization to develop an application for support. Individuals from diverse backgrounds, including underrepresented racial and ethnic groups, individuals with disabilities, and women are always encouraged to apply for DOE/NNSA support.

Application Package Specifics

The application forms that are package specific to this opportunity must be accessed through the Grants.gov Workspace. In the Grants.gov Workspace, there may also be a link to FedConnect – you are required to register in FedConnect prior to beginning the application process.

Number of Applications That Can Be Submitted

Applicant organizations may submit more than one application, provided that each application is scientifically distinct. DOE/NNSA will not accept duplicate or highly overlapping applications under review at the same time. This means that the DOE/NNSA will not accept:

- A new application that is submitted before issuance of the summary statement from the review of an overlapping new or renewal application.
- A renewal application that is submitted before issuance of the summary statement from the review of the previous new application.
- An application that has substantial overlap with another application pending appeal of initial peer review.

Type of Applications Accepted

DOE/NNSA will accept new and renewal applications under this announcement. Renewal applications are requests for additional funding for a period after that provided by a current award. In preparing a renewal application, applicants should assume that reviewers will not have access to previous applications. The application should be developed as fully as though the applicant were applying for the first time. The application must include all the information required for a new project, plus the project narrative section should discuss the results from prior work.

Electronic Delivery

The Department of Energy/National Nuclear Security Administration (DOE/NNSA) is participating in the Grants.gov initiative to provide the grant community with a single site to find and apply for grant funding opportunities. Applicants must submit their applications online through Grants.gov.

How to Register to Apply through Grants.gov

Instructions: Read the instructions below about registering to apply for DOE/NNSA funds. Applicants should read the registration instructions carefully and prepare the information requested before beginning the registration process.

Reviewing and assembling the required information before beginning the registration process will alleviate last-minute searches for required information.

Organizations must have an active System for Award Management (SAM) registration which provides a Unique Entity Identifier (UEI), and Grants.gov account to apply for grants. If individual applicants (or those submitting on their own behalf) are eligible to apply for this funding opportunity, they need only refer to the steps below.

Creating a Grants.gov account can be completed online in minutes, AND SAM registration may take several weeks. Therefore, an organization's registration should be done in sufficient time to ensure it does not impact the entity's ability to meet required application submission deadlines.

Organization registration instructions can be found on Grants.gov <https://www.grants.gov/applicants/grant-applications/how-to-apply-for-grants>.

- **System for Award Administration (SAM) Account**

All organizations (entities) applying online through Grants.gov must register with the System for Award Management (SAM). Failure to register with SAM will prevent your organization from applying through Grants.gov. SAM registration must be renewed annually. For more detailed instructions for registering with SAM, refer to: <https://www.grants.gov/applicants/applicant-registration>. Both prime applicants and subapplicants must have a SAM account.

- **FedConnect Account:** FedConnect is the repository for DOE/NNSA to submit questions regarding any issues and/questions with the application. FedConnect website is located at web address, www.fedconnect.net. Questions regarding the content of the funding opportunity announcement must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party, to submit questions, and to view responses. To register with FedConnect, refer to: [FedConnect - Gateway to Government Opportunities](#).

- **Grants.gov Account:** Register and create an account at Grants.gov if you do not have an account. Registering with Grants.gov follows several steps. After navigating to the registration page, begin by completing a few form fields. You will be asked your first and last name, email address and phone number as well as username and password. You will then be asked to confirm your email address by clicking on the Send Temporary Code. Go to your email and find the Grants.gov Registration Temporary Code email and click on the link to confirm your email address by entering the Temporary Code. If you don't see the message in your email box, check your spam inbox. Applicants will want to add an individual profile or an organization profile. To add an organization applicant profile, you will need to provide your organization's unique entity identifier (UEI) along with a profile name. The UEI is not applicable to individual profiles. Grantors that are registering with Grants.gov to request that they be affiliated with the agency. For more detailed instructions about creating a profile on Grants.gov, refer to: <https://www.grants.gov/applicants/applicant-registration/add-profile>.

- **Range of Roles in Grants.gov:** Every organization has an E-Business Point of Contact or EBiz POC. This person is responsible among other things for assigning roles to all Grants.gov registered users within the organization. There can be only one EBiz POC. The EBiz POC, however, may choose to give other users the ability to assist in managing organizational activities on Grants.gov. Users with the Expanded AOR Role (EXP) can manage all applicants and workspaces for the organization, assign roles, create workspaces, and submit any workspace application, among other things. Users given the Standard AOR Role can create workspaces, submit grant applications, and assign the Manage Workspace role, among other things. Users given the Workspace Manager (WM) role can create and setup a workspace for a specific funding opportunity and serve as the Workspace Owner. Users may also be given a custom role with select privileges by the organization's EBiz POC or Expanded AOR.

Users given no role may be added to a workspace, and they may conduct basic actions, such as filling out individual workspace forms, but they cannot apply. Find out more about the roles at [User Roles and Access Levels in Workspace](#).

- **Electronic Signature:** When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC of the organization **must** authorize people who are able to make **legally binding commitments on behalf of the organization as a user with the AOR role**; this step is often missed, and it is crucial for valid and timely submissions.

Page Limitations

All page limitations described in **Attachment 1, Applicant and Subapplicant Required Forms and Format must be followed**. Only the designated page limitations will be reviewed – any additional pages will not be reviewed nor considered part of the submission. This applies to the Project Narrative, excluding appendices, which has a page limitation of 30 pages and includes the Cover Page.

Instructions for Application Submission

DOE/NNSA performs an initial eligibility review of applicant submissions to determine whether they meet the eligibility requirements of the FOA and will not review or consider submissions that do not meet the eligibility requirements.

All submissions must conform to the following form and content requirements (see Attachment 1), including maximum page lengths (described below) and must be submitted as specifically stated and on the required due date (DOE/NNSA does not allow grace periods for submission of applications). DOE/NNSA will not review or consider applications submitted through means other than specifically stated in the FOA. DOE/NNSA will not extend deadlines for applicants who fail to submit required information and documents due to server/connection congestion.

Problems with computer systems at the applicant organization, Adobe compatibility settings issues, failure to follow instructions in the Funding Opportunity Announcement, or failure to attach documents to the application package correctly are not considered system issues. Grants.gov may be contacted at 1-800-518-4726, Option 6, and a customer service representative will assist you if you have any issues with your application submission. It is best to complete the application package a minimum of 24 to 48 hours prior to the due date, to ensure there is sufficient time to resolve any submission issues.

NOTE: Please read carefully. All applicant and subapplicant application requirements, regardless of whether the applicant or subapplicant is listed as, or a part of a University System, or integrated by, or under a university organization or listed as a member university under a Board of Regents, or considered inclusive to a university system, must provide all mandatory application documents as outlined in the Funding Opportunity Announcement (FOA). Under no circumstances will deviations or exceptions from the FOA requirements be allowed. Failure to provide the required application documents per the FOA requirements, will be deemed your application to be non-responsive and dropped from further consideration or review. If necessary, contact the Funding Agency to explain this further.

Content and Applications Forms: All applicants including subapplicants must complete the mandatory forms and any applicable optional forms in accordance with the instructions on the forms and the additional instructions below as well as instructions provided in Attachment 1. Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement.

NOTE: You may only use the following UTF-8 characters when naming your application.

Submission Dates and Times: Please review Key Dates and Time of Application Submission in Part I. Overview. Applicants are encouraged to submit applications before the due date to ensure they have time to make any application corrections that might be necessary for successful submission. When a submission date falls on a weekend or Federal holiday, the application deadline is automatically extended to the next business day. **The application due date is February 06, 2024 at 23:59:59 Eastern Standard Time (EST).**

Applying to DOE/NNSA in Grants.gov

Grants.gov applicants can apply online using Workspace. Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. For each funding opportunity announcement (FOA), you can create individual instances of a workspace.

There are 3 ways to complete grant application forms within a Workspace. You can complete forms on 1) Webforms by using a web browser; 2) download PDFs of individual forms and fill them out; and 3) reuse previous forms.

- **Webform:** To fill out a Webform, first, click the form's Weblink. The form will appear in your browser window. You can jump to specific parts of the form by clicking on the Sections menu to the left of the section's menu of the screen. As you edit an online form, your changes will be automatically saved every five minutes. The data and attachment will be autosaved, but the workspace will not be updated until you click the "Save" button. Use the "SAVE" button often. Click the Check for Errors button to receive a list of errors or missing data in the online form. The list will specify the section and data field with an error. Click the Close button when you are done completing the form and if you are with an organization when done completing the form. And, if you are with an organization, determine whether you want the application locked to other users by clicking on the appropriate button. Click the "yes" button as locking it will prevent others from updating a form while you work.

Wait for a few seconds as the form PDF opens in a new window. Click the Save button under the Form Actions section to save the form to your computer. Next, begin filling out the form, saving your progress as you go along. When the form has been filled, click the Save button. Then click the "Check for Errors" button and a pop-up window will list any field errors in the form. Errors will also be outlined in red in the form. Finally, fix any fields that require attention, then click Save again. You are now ready to upload the completed form to your workspace. You can initiate this process by clicking the Upload link. Note that if the form is locked by another Participant, the Upload link will not be activated.

- **REUSING a Form From a Previous Workspace:** To reuse a form, click the Reuse link. Next, in the Reuse Workspace Form pop-up window you will see a message stating that the selected form will be overwritten once you select a form to reuse. Click "Yes" to continue. In the Pop-up Window, search for the desired workspace form. You can preview the desired form by clicking the Preview link in the Actions column. To reuse a specific form, click the Select link. You will be taken back to the Forms tab of the Manage My Workspace page, and a message will read, Form Successfully Reused. You can also reuse forms by uploading a PDF form from a previous workspace application. One final note: If you are completing the fillable PDF forms, make sure your version of Adobe Reader or Adobe Acrobat is up to date before downloading a form from the workspace. Visit Grants.gov Adobe Software Compatibility page for more information: <https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html>.

Applying in Workspace

An application may be submitted through a Workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab in the Funding Notice. Important things required of the submission process:

- **Required Roles & Privileges:** To apply, roles and/or privileges are required: The Standard AOR role (if you are a participant).
- **Complete a Workspace:** Add participants to the workspace to work on the application together, complete all the required forms online or by downloading PDF versions, and check for errors before submission. The Workspace progress bar will display the state of your application process as you apply. As you apply using Workspace, you may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.
- **Adobe Reader:** If you decide not to apply by filling out webforms you can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at: <https://www.grants.gov/applicants/adobe-software-compatibility>.

- **Mandatory Fields in Forms:** In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully submit your application.
- **Complete SF-424 Fields First:** These forms are designed to fill in common required fields across other forms, such as the applicant's name, address, and SAM UEI. Once it is completed, the information will transfer to the other forms.
- **Submit a Workspace:** An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting your application package **at least 24-48 hours prior to the close date** to provide you with time to correct any potential technical issues that may disrupt the application submission. **The application due date is February 06, 2024 at 23:59:59 Eastern Standard Time (EST).**
- **Track a Workspace Submission:** After successfully submitting a workspace application, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the application. The number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace.

For additional training resources, including video tutorials, refer to: <https://www.grants.gov/applicants/applicant-training>

- **Applicant Support:** [Grants.gov provides applicants 24/7 support via the toll-free number 1-800-518-4726 and email at \[support@grants.gov\]\(mailto:support@grants.gov\)](#). For questions related to the specific grant opportunity, contact the number listed in the application package of the grant you are applying for.

If you are experiencing difficulties with your submission, it is best to call the Grants.gov Support Center and get a ticket number. The Support Center ticket number will assist the DOE/NNSA with tracking your issue and understanding background information on the issue.

- **Timely Receipt Requirements and Proof of Timely Submission:** All applications must be received by the **application due date is February 06, 2024 at 23:59:59 Eastern Standard Time (EST)**. Proof of timely submission is automatically recorded by Grants.gov. An electronic date/time stamp is generated within the system when the application is successfully received by Grants.gov. The applicant with the AOR role who submitted the application will receive an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov with the successful transmission of their application. This applicant with the AOR role will also receive the official date/time stamp and Grants.gov Tracking number in an email serving as proof of their timely submission.

When DOE/NNSA successfully retrieves the application from Grants.gov, and acknowledges the download of submissions, Grants.gov will provide an electronic acknowledgment of receipt of the application to the email address of the applicant with the AOR role who submitted the application. Again, proof of timely submission shall be the official date and time that

Grants.gov receives your application. Applications received by Grants.gov after the established due date for the program will be considered late and will not be considered for funding by DOE/NNSA.

Applicants using unreliable internet connections should be aware that the process of completing the Workspace can take some time. Therefore, applicants should allow enough time to prepare and submit the application before the package closing date.

Grants.gov will provide either an error or a successfully received submission message in the form of an email sent to the applicant with the AOR role attempting to submit the application.

Funding Opportunity Modifications: Funding Opportunity Modifications will be posted on Grants.gov.

Submission Dates and Times: Part I, Overview Information contains information about Key Dates and times. **Applicants** are encouraged to submit applications before the due date to ensure they have time to make any application corrections that might be necessary for successful submission. **(check the future due date to make sure it does not fall on a weekend or holiday, grants.gov closes on the due date provided regardless of whether it is a weekend or holiday.)** **The application due date is February 06, 2024 at 23:59:59 Eastern Standard Time (EST).** When a submission date falls on a weekend or Federal holiday, the application deadline is automatically extended to the next business day.

The SF424 (R&R) Application for Federal Assistance must be used when preparing an application to this FOA – this form is used in all grant applications. This form collects information critical to DOE/NNSA to include 1) type of submission, 2) applicant information, 3) type of applicant, and 4) proposed project dates. The Standard Forms (SF) used for Research and Related (R&R) applications are located on the website at www.grants.gov. These forms must be used to submit the application and are required for both Prime Applicant and Subapplicant unless they specifically indicate that it is for the Prime Applicant Only (See **Attachment 1**). All applicants including subapplicants must complete the mandatory Standard Forms (SF) and any applicable forms in accordance with the instructions supplied by Grants.gov and the additional instructions below as well as on **Attachment 1**. Files that are attached to the appropriate forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement and on Attachment 1. Attached PDF files must be plain files consisting of text, numbers, and images without editable fields, signatures, passwords, redactions, or other advanced features available in some PDF-compatible software. Do not use PDF portfolios or binders.

The required Standard Forms (SF) and other required documentation are listed below and on Attachment 1. Please note that each Standard Form has an attached instructional page and can be viewed and printed. All instructions in the Standard Forms applicable to Research and Related (R&R) must be followed.

SF424 (R&R) – Application for Federal Assistance

All instructions in the SF424 Research and Related must be followed.

R&R Budget

There are two types of forms that may be selected:

- **R&R Budget Total Fed + Non-Fed (Cost Share).**
Cost sharing is not required but may be offered. The R&R Budget Total Fed + Non-Fed (with Cost Share) affords the opportunity to input the cost share amounts from non-federal sources. Note that offering Cost Share will not bolster chances of selection since under 2 CFR 200 as Federal agencies are no longer allowed to use voluntary committed cost-share as a consideration in the merit review process.
- **R&R Budget**
This is the no cost share format.

Applicants must complete a separate budget for each year of support requested. The form will generate a cumulative budget for the total project period of 5-years. **Applicant must complete all the mandatory information on the form before the NEXT PERIOD button is activated.** Applicants may request funds under any of the categories listed if the items and

amounts 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. Categories in the Research and Related (R&R) Budget include Section A – Senior/Key Personnel; Section B: Other Personnel; Section C: Equipment Description; Section D: Travel; Section E: Participant/Trainee Costs; Section F: Other Direct Costs; Section G: Other Direct Costs.

R&R Budget Justification Spreadsheet

Attach the Excel Spreadsheet, once complete to the Budget Narrative File as well as additional documentation provided. Please limit the amount of documentation from vendor quotes – only pertinent information is required.

NOTE: A budget justification is an explanation of factors used to determine cost on each budget line item in a proposal. This form is required and must be filled-in with justifications for the budget categories requested. Typical budget categories include the following: Senior/Key Personnel, Other Personnel, Equipment, Travel, Other Direct Costs (Materials and Supplies, Publication Costs, Consultant Services, Computer Services, Subcontracts, Tuition, Participant Incentives, etc.), and Indirect Costs. Same budget categories as that of the R&R Budget (this serves as the written justification for the budget categories). If funding is requested on the R&R Budget form for equipment, travel, or materials and supplies, the justification must be completed with the requested written budget justification summary in the R&R Budget Justification Spreadsheet.

- **Equipment Summary Estimates:** If funds are requested for equipment, this section of the **R&R Budget Justification Spreadsheet** is mandatory and must be completed include quotes obtained from specific vendors. You may attach a separate word document to justify equipment, if necessary. Equipment is defined as tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the applicant's institution for financial statement purposes, **or \$5,000**, and must be identified in the Budget Justification Summary form. Please explicitly follow the instructions on the form. For equipment listed as required to support the Statement of Objectives, quotes from vendors must be provided to support the requested cost along with contact information of each vendor equipment item listed. Attach to Budget Narrative Form, if using additional separate documentation to justify expenditure.
- **Travel Estimates:** If funds are requested for travel, the written budget justification for Federal research must be completed and must provide sufficient justification for both international and domestic travel. Please use the R&R Budget Justification Spreadsheet and attach a separate word document to justify travel, if applicable. The prime and subapplicant are both required to participate in DNN R&D's annual University Program Review (UPR) of which the locations and dates will be provided by the Program Office once you are notified of award. At the UPR, the Principal Investigator/Project Director (PI/PD), or their representative, will be required to give a brief overview of accomplishments after attending the UPR. The website address for the institution's travel policy (and a hard copy submitted to the Grant Officer) must be provided in the budget justification. Information for all travel, including foreign travel must be provided. All requests for foreign travel during performance of an awarded grant not initially provided with your application, must be submitted in advance in writing, to the Grant Officer for approval, and must include the travel dates, location, number of persons traveling, purpose, number of days traveling, justification and total cost. Additional information may be accessed at <https://www.gsa.gov/travel> to assist with estimated costs of travel both domestic and international. Attach to Budget Narrative Form, if using additional separate documentation to justify expenditure.
- **Materials/Supplies:** If funds are requested for materials and supplies, justification for the item and quantities requested must be justified and an explanation provided of the item provided on the written Budget Justification Summary. Justification is mandatory and if not supplied will be returned upon Merit Review for a full and complete justification. Include the costs for each Material/Supplies providing Aggregate Total (the grand total of all Materials and Supplies for the entire period of performance).

Materials/Supplies exceeding \$3,000 requires source documentation such as vendor quote(s), quote(s) from internet market research, etc., be provided if selected for award. Costs for Material and Supplies may be considered equipment if the total aggregate amount of a Material/Supply is equal to or greater than \$5,000 and has a useful shelf-life of more than one-year. Attach to Budget Narrative Form, if using additional separate documentation to justify expenditure.

R&R Subaward Budget – All instructions in the SF424 (R&R) must be followed. [Subapplicant must complete all the mandatory information on the form before the NEXT PERIOD button is activated.](#)

Project/Performance Site Locations V4.0

All instructions must be followed.

Assurances for Non-Construction SF-424B (R&R) V1.1

All instructions must be followed.

Key Contacts V2.0

All instructions must be followed.

Disclosure of Lobbying SF-LLL V2.0

All instructions must be followed.

GG Certification of Lobbying Form V1.1

All instructions must be followed.

Government Approved Indirect Rates and Cost Allocations – Mandatory for Prime Applicant and Subapplicants.

If a Negotiated Rate Agreement with a Government approved Indirect Rates and Cost Allocations Agreement has been executed with the Governmental cognizant agency, upload the Agreement to the Grants.gov Workspace Attachment form (see instructions on next page). If a Negotiated Rate Agreement does not exist, provide supporting documentation for proposed indirect rates.

Letters of Support: Provide letters of support from each collaborator named on the application describing the contribution to the proposed research. These letters may be from the DOE Laboratories, Plants, and Other Field Sites or Letters of Collaboration for unfunded or funded collaborations must state the intention to participate, but they should not be written as recommendation or endorsement letters, which are not allowed. See Table 1 for further instructions.

Cost Share: This award does not require cost sharing but may be offered. **Cost share must come from non-federal sources,** offering Cost Share will not bolster chances of selection since under 2 CFR 200 as Federal agencies are no longer allowed to use voluntary committed cost-share as a consideration in the merit review process. There are two types of cost share: voluntary cost share and voluntary committed cost-share.

- **Voluntary Cost Sharing:** Cost share is considered “voluntary” when the applicant describes a quantifiable amount of resources it will contribute to the project.
- **Voluntary Committed Cost Sharing:** DOE/NNSA will consider any voluntary cost sharing offered at the application stage as “committed” cost sharing at the award stage and occurs when the applicant/subapplicant pledges cash or in-kind resources towards a project but is not obligated to do so by the program solicitation/announcement. Any quantified cost sharing offered in submitted applications become fiscally and/or programmatically auditable and must be documented and reported to DOE/NNSA, if the application is funded. Any IHE who provides voluntary

committed cost sharing must fill-out the R&R Fed/NonFed Budget Form. In addition, some universities at their discretion may require subapplicants to cost share. Voluntary committed cost-share occurs when applicant/subapplicant pledges cash or in-kind resources towards a project but is not obligated to do so by the program solicitation/announcement.

INSTRUCTIONS FOR APPLICATION SUBMISSION: PRIME APPLICANT

Cover Page

Comprised of the following required elements numbered as listed below and must not exceed 1-Page (it is a part of the Project Summary and included in the total page limitation of the Project Narrative).

1. FOA Number (DE-FOA-0003180)
2. Application Title (Project title must be no more than 200 characters long, including the spaces between the words)
3. Type of organization (i.e., U.S. university/academic institution of higher learning or not-for-profit, non-degree-granting domestic U.S. organization).
4. Type of proposed award: New Award or Renewal of Existing Award (specify award number for existing award).
5. Name of Lead Institution.
6. Entity's Business Point-of-Contact (POC) or Authorized Organization Representative (AOR): Provide name, email address, and telephone.
7. Principal Investigator/Lead Project Director: Provide name, mailing address, telephone number, and email address.
8. Team Members (includes IHE institutional collaborators): Provide name(s), mailing addresses, telephone numbers, and electronic mail addresses.
9. Previous DOE/NNSA Federal assistance award numbers (DOE/NNSA assigns an assistance award number for projects currently funded under the Integrated University Program).
10. Listing of any DOE Laboratories, Plants, and Other Field Site personnel that is/are collaborating on the project.

Project Summary/Abstract

For the Prime applicant, the Project Summary/Abstract is required and must contain a summary of the proposed activity suitable for dissemination to the public. It must be a self-contained document that identifies:

- Name of the applicant.
- Project director/principal investigator(s).
- Project title.
- Objectives of the project.
- Milestones of the project listed by year.
- A description of the project, including methods to be employed, potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects).

This document must not include any proprietary or sensitive business information as the DOE/NNSA may make it available to the public after awards are made.

Project Narrative

The Project Narrative must provide a detailed description of the below and is limited to 30 pages including the Cover Page (see Attachment 1 for additional requirements). DOE/NNSA will evaluate and consider only applications that meet the requirements as established. For the subapplicant requirements, please see the requirements below prime applicant requirements.

- **Project Objectives:** This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
- **Merit Review Criterion Discussion:** The section should be formatted to address each of the merit review criterion and sub-criterion listed in **Section V of the Application Review Information**. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. DOE/NNSA WILL EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT ADDRESS EACH MERIT REVIEW CRITERION AND SUBCRITERION SEPARATELY. [THIS INFORMATION IS FOUND IN SECTION V, Application Review Information, under Merit Review Criterion.](#)
- **Relevance and Outcomes/Impacts:** This section must explain the relevance of the effort to the DNN R&D Program Objectives in the program announcement and the expected outcomes and/or impacts.
- **Roles of Participants:** For multi-organizational or multi-investigator projects, describe the roles and the work to be performed by each participant/investigator, business agreements between the applicant and participants, and how the various efforts will be integrated and managed.
- **Integration with DOE Laboratories, Plants, and Other Field Sites:** Describe management and coordination mechanisms and how the work of the consortia shall be coordinated and integrated with the partner DOE Laboratories (See **Attachment 2** for List of DOE Laboratories, Plants, and Other Field Sites and Point-of Contacts).
- **Facilities And Other Resources:** Identify the facilities (e.g., office, laboratory, computer, etc.) to be used at each performance site listed and, if appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Provide any information describing the other resources available to the project such as machine and electronics shops.
- **Equipment:** List important items of equipment already available for this project and, if appropriate, note the location and pertinent capabilities of each. If you are proposing to acquire equipment, describe comparable equipment, if any, already at your organization and explain why it cannot be used.

Statement of Objectives

This is a stand-alone document and is generally less than 4 pages in total. The Statement of Project Objectives which can be referred to as SOO addresses how the objectives of the project will be met. The SOPO must contain a clear, concise description of all activities to be completed during the project period of performance and follow the structure discussed below. The SOO may be released to the public by DOE/NNSA in whole or in part after award. It is therefore required that it not contain proprietary or confidential business information.

- **Title**
The title must be concise and descriptive and summarize work to be performed.
- **Objectives**
One paragraph on the overall objective(s) of the work and each phase of the work must have an objective.
- **Scope of Work**
This section should not exceed one-half page and should summarize the effort and approach to achieve the objective(s) of the work for each Phase.
- **Identification of Tasks and Performance**
Tasks, concisely written, should be provided in a logical sequence, and should be divided into the phases of the project, as appropriate. This section provides a summary of the planned approach to this project. An outline of the Project Management Plan (referenced in Task 1.0 below and required to be submitted with your application).

A. Phase 1

1. **Task 1.0: Project Management and Planning**

Description includes work elements required to revise and maintain the Project Management Plan and to manage and report on activities in accordance with the plan.

a. Subtask 1.1: Description

2. **Task 2.0 – Title**

B. Phase II (Optional)

1. Task 3.0 – Title

- **Reports**

The award recipient shall provide a list of deliverables other than those identified on the "*DOE F-4600.2, Federal Assistance Reporting Checklist*". These reports must be identified within the text of the Statement Objectives

Deliverables

The *DOE F-4600.2 Federal Assistance Reporting Checklist* found at [Financial Assistance Forms and Information For Applicants and Recipients | Department of Energy](#) and is downloadable. This form provides instructions for periodic, topical, and final reports required for the project. It also provides timelines of report due dates and any special reports required.

Note: The Recipient shall provide a list of deliverables other than those identified on the "*DOE F-4600.2, Federal Assistance Reporting Checklist*" that will be produced at specific timeframes within the period of performance. These reports must be identified within the text of the Statement of Project Objectives. These reports may be identified as: 1) Task 1.1 – Report Description; 2) Task 2.2 – Report Description; and 3) etc. See above under Prime Applicant for how to format.

Appendices to Project Narrative

Both prime applicant and subapplicants must complete the following appendices and attach them to the final Project Narrative document. The appendices do not count towards the Project Narrative page limitation (See Attachment 1).

Appendix 1 – Biographical Sketch

Provide a biographical sketch for the project director/principal investigator (PD/PI) and each senior/key person listed in Section A on the R&R Budget form, including the subapplicant senior/key persons. Provide the biographical sketch information as an appendix to your project narrative of the subapplicant senior/key persons. Do not attach a separate file and may include the below for everyone:

- **Education and Training:** Undergraduate, graduate, and postdoctoral training, provide institution, major/area, degree, and year.
- **Research and Professional Experience:** Beginning with the current position list, in chronological order, professional/academic positions with a brief description.
- **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.
- **Synergistic Activity:** List no more than 5 professional and scholarly activities related to the effort proposed.

Appendix 2 – Current and Pending Support

Provide a list of all current and pending support (both Federal and non-Federal) for the Project Director/Principal Investigator(s) (PD/PI) and senior/key persons, including subrecipients, for ongoing projects and pending applications. For

each organization providing support, show the total award amount for the entire award period (including indirect costs) and the number of person-months per year to be devoted to the project by the senior/key person. Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review.

Appendix 3 – Identification of Potential Conflicts of Interest or Bias in Selection of Reviewers

This appendix requires the below information:

- **Collaborators and Co-editors:** List in alphabetical order all persons, including their current organizational affiliation, who are, or who have been, collaborators or co-authors with you on a research project, book or book article, report, abstract, or paper during the 48 months preceding the submission of this application. Also, list any individuals who are currently, or have been, co-editors with you on a special issue of a journal, compendium, or conference proceedings during the 24 months preceding the submission of this application. If there are no collaborators or co-editors to report, state "None."
- **Graduate and Postdoctoral Advisors and Advisees:** List the names and current organizational affiliations of your graduate advisor(s) and principal postdoctoral sponsor(s) during the last 5 years. Also, list the names and current organizational affiliations of your graduate students and postdoctoral associates.

Appendix 4 – Bibliography & References Cited

Provide a bibliography of any references cited in the Project Narrative. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Include only bibliographic citations. Applicants should be especially careful to follow scholarly practices in providing citations for source materials relied upon when preparing any section of the application. To reduce the number of files attached to your application, please provide the Bibliography and References Cited information as an appendix to your project narrative.

Appendix 5 – Facilities & Other Resources

This information is used to assess the capability of the organizational resources, including subapplicant resources, available to perform the effort proposed. Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical, and Other). If appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Describe other resources available to the project (e.g., machine shop, electronic shop) and the extent to which they would be available to the project.

Appendix 6 – Other and/or Equipment

List major items of equipment already available for this project and, if appropriate identify location and pertinent capabilities.

Letters of Collaboration may be attached in Appendix 6. See below under "Other Attachments" to review information pertaining to collaborations.

Other Attachments

Project Management Plan

This plan should be formatted to include the following sections with each section to include the information as described below. This plan should describe the structure of the proposed partnership and roles of each member organization including DOE Laboratories, Plants, and Other Field Site collaborator. **(The Project Management Plan is not the Project Narrative or a part of the Project Narrative.)** This section should also include management/monitoring plans for all sub-awards under this grant and mechanisms for verifying completed milestones:

- **Executive Summary:** Provide a description of the project that includes the objective, project goals, and expected results. For purposes of the application, this information is included in the Project Narrative and should be simply copied to this document for completeness, so that the Project Management Plan is a stand-alone document.
- **Management Process:** Provide a description of the proposed approach to manage the coordination of activities within and amongst the IHE and DOE Laboratories, Plants, and Other Field Sites in the consortia; prioritization, quality, and out-year selection of research including multi-site research; and dialog among, and if needed replenishment of, key personnel.
- **Success Criteria at Decision Points:** Provide success criteria for each decision point in the project, including go/no-go decision points and the conclusions of budget periods and the entire project. The success criteria should be objective and stated in terms of specific, measurable, and repeatable data. Usually, the success criteria pertain to desirable outcomes, results, and observations from the project. **Note:** As the first task in the Statement of Objectives, successful applicants will revise the version of the Project Management Plan that is submitted with their applications by including details from the negotiation process. The Project Management Plan must be updated as the project progresses, and the Recipient must use this plan to report schedule and budget variances. Additional criteria to include in the Management Plan:
 - **Risk Management:** Provide a summary description of the proposed approach to identify, analyze, and respond to perceived risks associated with the proposed project. Project risk events are uncertain future events that, if realized, impact the success of the project. As a minimum, include the initial identification of significant technical, resource, and management issues that have the potential to impede project progress and strategies to minimize impacts from those issues.
 - **Milestone Log:** Provide milestones for each budget period (or phase) of the project. Each milestone should include a title and planned completion date. Milestones should be quantitative and show progress toward budget period and/or project goals. **Note:** During project performance, the Recipient must report the Milestone Status as part of the required quarterly Progress Report as prescribed under *Attachment 4, DOE 4600.2 Federal Assistance Reporting Requirements Checklist* ([Financial Assistance Forms and Information For Applicants and Recipients | Department of Energy](#)) The Milestone Status will present actual performance in comparison with Milestone Log, and include:
 - The actual status and progress of the project.
 - Specific progress made toward achieving the project's milestones.
 - Any proposed changes in the project's schedule required to complete milestones.
- **Funding and Cost Profile:** Provide a table (the Project Funding Profile) that shows, by budget period, the amount of government funding going to each project team member. Also provide a table (the Project Costing Profile) that projects, by month, the expenditure of government funds for the first budget period, at a minimum.
- **Project Timeline:** Provide a milestone schedule, as described in the Statement of Project Objectives. The timeline should include for each task, a start date, and end date. The timeline should show interdependencies between tasks and include the milestones that are identified in the Milestone Log (Section C).

Letters of Collaboration

These are mandatory. Letters of collaboration for unfunded or funded collaborations must state the intention to participate, but they should not be written as recommendation or endorsement letters, which are not allowed. Letters of Collaboration may be attached to Appendix 6.

Eligibility Requirements for Collaborations with DOE Laboratories, Plants, and Other Field Site Contractors

To avoid interfering with the selection of peer reviewers, please do NOT include general letters of support for the proposal or list collaborators that do not have an active part in the project. General letters of support will not be used in making funding decisions. Optional letters of collaboration for unfunded or funded collaborations may be placed in Appendix 6

(Other Attachments). Letters of Collaboration should state the intention to participate, but they should not be written as recommendation or endorsement letters, which are not allowed. See Attachment 2 for a complete list of DOE Laboratories, Plants, and Other Field Sites.

INSTRUCTIONS FOR APPLICATION SUBMISSION: SUBAPPLICANT

Subapplicants participating as a consortium member, must provide the Cover Page information and follow Attachment 1.

Cover Page

Comprised of the following required elements numbered as listed below and must not exceed 1-Page (it is a part of the Project Summary and included in the total page limitation of the Project Narrative).

1. FOA Number (DE-FOA-0003180)
2. Application Title (Project title must be no more than 200 characters long, including the spaces between the words)
3. Type of organization (i.e., U.S. university/academic institution of higher learning or not-for-profit, non-degree-granting domestic U.S. organization).
4. Name of Prime Applicant Lead Institution
5. Entity's Business Point-of-Contact (POC) or Authorized Organization Representative (AOR): Provide name, email address, and telephone.
6. Principal Investigator/Lead Project Director: Provide name, mailing address, telephone number, and email address.
7. Team Members (includes IHE institutional collaborators): Provide name(s), mailing addresses, telephone numbers, and electronic mail addresses.
8. Previous DOE/NNSA Federal assistance award numbers (DOE/NNSA assigns an assistance award number for projects currently funded under the Integrated University Program).
9. Listing of any DOE Laboratories, Plants, and Other Field Site personnel that is/are collaborating on the project.

Statement of Objectives

Subapplicants must collaborate with the lead university (e.g., Applicant – Prime) and part of the application is the Statement of Objectives. The SOO must be coordinated and submitted the SOO to the lead university (e.g., Applicant-Prime) for the project. The Statement of Objectives must contain a clear, concise description of all activities to be completed during project performance. This document must address how the objectives will be met and is generally less than 4 pages in total for the proposed work AND does not include the Cover Page.

- **Title Depicting Work to be Performed**
Insert the title of work to be performed and be concise and descriptive.
- **Statement of Objectives**
Must include one paragraph on the overall objective(s) of the work. Also, include objective(s) for each phase of the work.
- **Scope of Work**
Must not exceed one-half page and should summarize the effort and approach to achieve the objective(s) of the work for each Phase.
- **Tasks to be Performed**

Must be concisely written, should be provided in a logical sequence, and should be divided into the phases of the project, as appropriate. This section provides a summary of the planned approach to this project. An outline of the Project Management Plan (referenced in Task 1.0 below and required to be submitted with your application) is provided later in this Section.

A. Phase 1

1. **Task 1.0: Project Management and Planning**

Description includes work elements required to revise and maintain the Project Management Plan and to manage and report on activities in accordance with the plan.

a. Subtask 1.1: Description

2. **Task 2.0 – Title**

B. Phase II (Optional)

1. Task 3.0 – Title

DELIVERABLES

Include the periodic, topical, and final reports and when they must be submitted in accordance with the attached "Federal Assistance Reporting Checklist" and the instructions accompanying the checklist. Note: The Recipient shall provide a list of deliverables other than those identified on the "Federal Assistance Reporting Checklist" that will be delivered. The DOE F 4600.2 Federal Assistance Reporting Checklist can be found at ([Financial Assistance Forms and Information For Applicants and Recipients | Department of Energy](#)). These reports shall also be identified within the text of the Statement of Project Objectives. See the following examples:

- Task 1.1 - (Report Description)
- Task 2.2 - (Report Description)
- Appendices 1-6 must be attached and are not part of the page limitation.

PART II. APPLICATION AND SUBMISSION

SECTION V. Application Review Information

Review Criteria

Only the review criteria described below will be considered in the review process. Applications submitted to the DOE/NNSA in support of the NNSA Mission found at [About Us | Department of Energy](#) and are evaluated for scientific and technical merit through the DOE/NNSA peer review system.

For this particular announcement, note the following: The mission of the U.S. Department of Energy, National Nuclear Security Administration (DOE/NNSA), Office of Defense Nuclear Nonproliferation, Research and Development (DNN R&D) is to drive innovative research that develops technologies and expertise to detect foreign nuclear proliferation activities and produces technologies for integration into operational systems by leveraging capabilities at the DOE Laboratories, Plants, and Other Field Sites, as well as at universities and within private industry. DNN R&D supports U.S. national and nuclear security objectives in reducing global nuclear security threats through the innovation of unilateral and multi-lateral technical capabilities to detect, identify, and characterize: 1) foreign nuclear weapons development activities; 2) illicit diversion of special nuclear materials; 3) nuclear explosions globally; and 4) stewarding U.S. technical capabilities in nuclear nonproliferation.

Initial Review Criteria: Application Award Eligibility

Prior to a comprehensive merit evaluation, DOE/NNSA will perform an initial compliance review to of all applications received to determine that (1) the applicant is eligible for an award; (2) the mandatory information required by the funding opportunity announcement has been submitted; and (3) the proposed project is responsive to the objectives of the funding opportunity announcement. Applications that fail to pass the initial compliance review will not be forwarded for merit review and will be eliminated from further consideration.

Merit Review Criteria

All applications passing the initial review will be evaluated in accordance with the following Merit Review Criteria.

Criterion 1 – Technical Merit – 40%

- The proposal clearly lay out a plan for conducting innovative research across multiple objectives.
- The proposed research complements on-going research at the DOE Laboratories, Plants, and Other Field Sites.
- What is the likelihood the stated research objectives are achievable? Is the risk well understood.
- Extent to which the application supports the continued development of nuclear nonproliferation-related disciplines.
- Extent to which the application supports the development and sustainment of the next generation of nuclear nonproliferation professionals.
- Extent to which the plan integrates multiple scientific, engineering, and other disciplines to achieve stated objectives, and that proposed activities are well-reasoned, well-organized, and based on a sound rationale.

Criterion 2 – Applicant Team Capabilities – 40%

- The likelihood that the applicant's described approach and structure (e.g., communication, coordination, and integration) to managing the consortium, including a framework for coordinating DOE Laboratories, Plants, or Other Field Site interactions, will lead to the successful performance of the proposed work and objectives under this FOA.

- Qualifications, capabilities and experience of the principal investigators, team leaders, and key personnel involved.
- PI time commitment to the project (refer to current and pending support): If the same PI is already working on multiple awards, consideration should be given if the PI can make significant contribution to the proposed project considering time commitments to other project awards.
- The likelihood that the applicant's resources and facilities, including key and unique facilities, as identified by the applicant, will lead to the successful achievement of the proposed work and objectives under this FOA.

Criterion 3 – Past Experience – 20%

- Extent of experience the lead institution has in implementing and managing similar programs of this size.
- Extent of experience the lead institution has with building and managing a multi-component consortium/organization, and to what extent has the applicant had past or on-going working relationships with the DOE Laboratories, Plants, and Other Field Site system.
- Likelihood the consortium's relevant experience and past, and on-going relationships with the DOE Laboratories, Plants, and Other Field Site system will lead to success.

Review and Selection Process Through the Merit Review

Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with [2 CFR 200.205](#). Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance." The guide is available at [Merit Review Guide for Financial Assistance and Unsolicited Proposals - Current Guides | Department of Energy](#).

Selection Official Consideration

The Selection Official will consider the merit review recommendation, program policy factors, and the amount of funds available.

The Selection Official will evaluate applications on the following Program Policy Factors:

- Preference will be given to applications which propose a group of projects which represent a diversity of technical approaches and methods; and
- Preference will be given to applications which complement existing funded efforts or projects, which, when considered together, will better advance overall research goals and objectives.
- Preference will be given to applications which include a diverse grouping of institutions (university size, minority serving institutions - for example, see [ED: Lists of Postsecondary Minority Institutions](#) to provide a balanced programmatic effort and a variety of differing technical perspectives.

Proposed budgets and costs will be evaluated for those applications which receive the highest merit review ratings to determine whether the budgets are substantiated and reasonable. NNSA reserves the right to request applicants to provide additional/supplemental information to verify costs and to justify proposed budgets. NNSA also reserves the right to negotiate changes to any proposed budget and/or project scope prior to making award to any applicant. NNSA shall not make awards based on unreasonable budgets or where costs outweigh any advantages in the technical approval.

Risk Assessment

Pursuant to [2 CFR 200.206](#), *Federal awarding agency review of risk posed by applicants*. Prior to making the award, DOE/NNSA is required by the Payment Integrity Information Act of 2019, [31 U.S.C. 3301 note](#) (downloadable), and [41 U.S.C. 2313](#) (downloadable) to review information available through any OMB-designated repositories of governmentwide eligibility qualification or financial integrity information as appropriate. In addition, DOE/NNSA will conduct a review of the risk posed by applications submitted under this FOA. Such review of risk will include:

- Technical merit of the application.
- Reports and findings from audits performed under [2 CFR 200](#), *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*; and the [2 CFR 200 Subpart F – Audit Requirements](#) or the Office of Management Budget Circular A-133, a single audit, previously known as the OMB Circular A-133 audit, is required for any organization that accepts \$750,000 or more in federal funds during the fiscal year. and
- Systems maintained under [2 CFR Part 180](#), *OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)* and the [2 CFR 200, Subpart E, System for Award Management \(SAM\) Exclusions](#) and “Do Not Pay” systems. DNP is authorized and governed by the [Payment Integrity Information Act of 2019](#) (PIIA), and several Office of Management and Budget (OMB) memoranda and circulars. The authorities generally belong to OMB, which delegates the operational aspects to the Department of the Treasury.

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

Applicants with no prior performance with DOE/NNSA awards may be asked to provide information about their financial stability and or their ability to comply with the management standards of [2 CFR 200](#), *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

Reporting of Matters Related to Recipient Integrity and Performance (December 2015)

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

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

DOE/NNSA will consider any written comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in [2 CFR 200.205](#), *Federal Awarding Agency Review of Risk Posed by Applicants*.

Government Discussions with Applicant

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: 1) the budget is not appropriate or reasonable for the requirement; 2) only a portion of the application is selected for award; 3) the Government may require additional information to make determination that a recipient is capable of complying with the requirements in [2 CFR 200](#), *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, as amended by [2 CFR 910](#) *DOE Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*; and/or (4) the Special Terms and Conditions required and found at [Financial Assistance Forms and Information For Applicants and Recipients | Department of Energy](#). Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

Anticipated Notice of Selection and Award Dates: DOE/NNSA anticipates notifying the applicant selected for award by **June 06, 2024** with an expected start date of **March 14, 2025** depending on Congressional appropriations.

SECTION VI. Award Administration Information

Award Notices

Notice of Selection

DOE/NNSA will notify applicants selected for award. This notice of selection is not an authorization to begin performance. (See Section IV.H with respect to the allowability of pre-award costs.)

Notice of Non-selection

Organizations whose applications have not been selected will be advised as promptly as possible. This notice will explain why the application was not selected.

Notice of Award (2014)

An Assistance Agreement issued by the Contracting Officer is the authorizing award document. It normally includes either as an attachment or by reference:

- Special Terms and Conditions.
- Intellectual Property Provisions.
- Federal Assistance Reporting Checklist, which identifies the reporting requirements.
- R&R Budget
- [2 CFR part 200](#) as amended by [2 CFR part 910](#) (DOE/NNSA Financial Assistance Regulation).
- National Policy Assurances to Be Incorporated as Award Terms.

Administrative and National Policy Requirements

Administrative Requirements: The administrative requirements for DOE/NNSA grants and cooperative agreements are contained in [2 CFR 200](#), *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* as amended by [2 CFR 910](#) *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

- The DOE/NNSA Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at [Financial Assistance Forms and Information For Applicants and Recipients | Department of Energy](#) under Award Terms.
- **National Policy Requirements:** The National Policy Assurances incorporated as a term and condition of the award are located [Financial Assistance Forms and Information For Applicants and Recipients | Department of Energy](#).
- Intellectual Property Provisions [2 CFR 200.488](#). The standard DOE/NNSA financial assistance intellectual property provisions applicable to the various types of recipients are located at: [Standard Intellectual Property \(IP\) Provisions for Financial Assistance Awards | Department of Energy](#)

SECTION VII. Other Information

Modifications

Notices of any modifications to this announcement will be posted on Grants.gov and the FedConnect portal. You can receive an email when a modification or an announcement message is posted by registering with FedConnect as an interested party for this FOA. It is recommended that you register as soon after release of the FOA as possible to ensure you receive timely notice of any modifications or other announcements.

Government Right to Reject or Negotiate

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

Commitment of Public Funds

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

Funding for all awards and future budget periods are contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority.

Proprietary Application Information

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

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

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

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

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

Intellectual Property Developed

- **Patent Rights.** The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE/NNSA award. 42 U.S.C. 5908 provides that title to such invention's vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See "Notice of Right to Request Patent Waiver" in paragraph G below.)
- **Rights in Technical Data.** Normally, the government has unlimited rights in technical data created under a DOE/NNSA agreement. Delivery or third-party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE's own needs or to ensure the commercialization of technology developed under a DOE agreement.
- **Notice of Right to Request Patent Waiver.** Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement because of this announcement, in advance of or within 30 days after the effective date of the award. Even if such advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award. Any patent waiver that may be granted is subject to certain terms and conditions in [10 CFR 784](#). Domestic small businesses and domestic nonprofit organizations will receive the patent rights clause at [37 CFR 401.14](#), i.e., the implementation of the Bayh-Dole Act. This clause permits domestic small business and domestic nonprofit organizations to retain title to subject inventions. Therefore, small businesses and nonprofit organizations do not need to request a waiver.

Notice Regarding Eligible/Ineligible Activities

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

Protection of Personally Identifiable Information

In responding to this FOA, applicants must ensure that Protected Personally Identifiable Information (PII) is not included in the application documents. These documents will be used by the Merit Review Committee in the review process to evaluate each application. PII is defined by the Office of Management and Budget (OMB) as:

“Any information about an individual maintained by an agency, including but not limited to, education, financial transactions, medical history, and criminal or employment history and information that can be used to distinguish or trace an individual's identity, such as their name, social security number, date and place of birth, mother's maiden name, biometric records, etc., including any other personal information that is linked or linkable to an individual.”

The term “PII,” as defined in [OMB Memorandum M-07-1616](#) refers to information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual. The definition of PII is not anchored to any single category of information or technology. Rather, it requires a case-by-case assessment of the specific risk that an individual can be identified. In performing this assessment, it is important for an agency to recognize that non-PII can become PII whenever additional information is made publicly available - in any medium and from any source - that, when combined with other available information, could be used to identify an individual.

This definition of PII can be further defined as Public PII and Protected PII.

- **Public PII:** PII found in public sources such as telephone books, public websites, business cards, university listing, etc. Public PII includes first and last name, address, work telephone number, email address, home telephone number, and general education credentials.
- **Protected PII:** PII that requires enhanced protection. This information includes data that if compromised could cause harm to an individual such as identity theft.

Annual Compliance Audits

If an institute of higher education, non-profit organization, or state/local government is a Prime Recipient or Subrecipient and has expended \$750,000 or more of Federal funds during the non-Federal entity's fiscal year, then a single or program-specific audit is required. For additional information, please refer to 2 C.F.R. § 200.501 and Subpart F.

If a for-profit entity is a Prime Recipient or Subrecipient and has expended \$750,000 or more of DOE funds during the entity's fiscal year, an annual compliance audit performed by an independent auditor is required. For additional information, please refer to 2 C.F.R. § 910.501 and Subpart F.

Applicants and sub-recipients (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.

Foreign National Access to DOE Laboratories, Plants, and Other Field Sites

All applicants that ultimately enter an award resulting from this FOA/NOFO will be subject to the following requirement concerning foreign national involvement. Upon DOE/NNSA's request, Prime Recipients must provide information to facilitate DOE/NNSA's responsibilities associated with foreign national access to DOE/NNSA sites, information, technologies, and equipment. A foreign national is defined as any person who was born outside the jurisdiction of the United States, is a citizen of a foreign government, and has not been naturalized under U.S. law. If the Prime Recipient or Subrecipients, contractors or vendors under the award, anticipate utilizing a foreign national person in the performance of an award, the Prime Recipient is responsible for providing to the Contracting Officer specific information of the foreign national(s) to satisfy compliance with all the requirements for access approval.

Management Plan

An applicant whose Full Application is selected for award will be required to submit a Data Management Plan within ninety (90) days of the award notification. The Data Management Plan is a document that outlines the proposed plan for data sharing or preservation. [Instructions for submission of this plan will be identified in your award notification and instruction provided.](#)

Funding Restrictions (December 2014)

Funding for all awards and future budget periods are contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority.

- **Cost Principles:** Costs must be allowable, allocable and reasonable in accordance with the applicable Federal cost principles referenced in [2 CFR part 200](#) as amended by [2 CFR part 910](#) – DOE Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards. For commercial entities, [FAR Part 31](#) is applied to the award.

- **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 referenced in 2 CFR part 200 as amended by 2 CFR part 910. Recipient must notify the Grants Management Specialist in writing if the 90-day pre-award cost option will be used. Recipients must obtain the prior approval of the contracting/grant officer for any pre-award costs that are for periods greater than this 90-day calendar period.

Upon selection of the applicant, requests for pre-award costs [REQUIRES PRIOR APPROVAL FROM THE GRANTS OFFICER](#) and should include a justification needed to cover requested pre-award costs along with a detailed breakdown of budget by cost element (i.e., labor, travel, materials, supplies, etc.). Pre-award 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 are incurred at the applicant's risk. DOE/NNSA is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

IHEs are encouraged to start recruitment of students and postdocs early and be prepared for an immediate start at the beginning of Period of Performance. Consequently, there may be a substantial lead time necessitating the request for pre-award costs beyond 90 days.

Submission from Successful Applicants

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

- Indirect cost information
- Other budget information including Equipment and Material and Supplies supporting documentation (purchase orders, quotes, invoices, etc.).
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination. See [2 CFR 200.300\(a\)](#).
- Representation of Limited Rights Data and Restricted Software, if applicable
- Upon selection, prior written approval from the Contracting Officer having cognizance over the DOE/NNSA Site Facility Management Contractors, for use, under this award, of any equipment, facility, or personnel at the DOE/NNSA National Laboratory Contractors.
- Budget Revision, as needed to align with funding or voluntary committed cost sharing, if applicable.

Submission Dates and Times

Applications should be received by, not later than. You are encouraged to transmit your application well before the deadline. The Grants.gov Helpdesk is available for extended periods, please check their website for the Helpdesk hours of operation. APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD. The Prime Applicants must complete all required registrations such as SAM.gov, FedConnect, and Grants.gov to submit the application/proposal. (Subapplicants are required to register in SAM.gov, FedConnect, and Grants.gov. Follow lead applicant (Prime) instructions for submitting required documents.) Note: The Prime Applicant is responsible for putting the application package together before submission. This includes gathering all the documents from the consortium members

(subapplicant). APPLICATION/PROPOSAL DUE NO LATER THAN TUESDAY, **FEBRUARY 06, 2024, 23:59:59 PM ET.**
ONLY PRIME APPLICANTS SHOULD SUBMIT AN APPLICATION/PROPOSAL.

SECTION VIII. Reference Material

Attachment 1. Applicant and Subapplicant Mandatory Forms and Format

Attachment 2. DOE National Laboratories, Plants and Other Field Sites

Attachment 3. Financial Assistance Environmental Checklist (NEPA)

Attachment 4. Budget Justification Spreadsheet (Excel Worksheet)

Section IX. Questions and Agency Contacts

Questions

Questions regarding the content of the announcement must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party to submit questions, and to view responses to questions. It is recommended that you register as soon after release of the FOA as possible to have the benefit of all responses. DOE/NNSA will try to respond to a question within 3 business days unless a similar question and answer have been posted on the website.

Questions and comments concerning this FOA shall be submitted not later than 3 calendar days prior to the application due date, February 6, 2024.

The Grants.gov support resources are available to assist to successfully find and apply for grants. Grants.gov Applicant Support is available 24/7 (except federal holidays). Be sure to include supporting details when you call or email. Grantors should contact their assigned Grants.gov Program Advisor for questions and support. Grants.gov may be called at [1-800-518-4726](tel:1-800-518-4726), Press 6 and a customer service representative will be with you shortly or support@grants.gov. <https://grants.dash.portal>. Grants.gov support resources are here to help you successfully find and apply for grants. Grants.gov Applicant Support is available 24/7 (except federal holidays). Be sure to include supporting details when you call or email.

DOE/NNSA cannot answer questions related to the application process.

Agency Contact

Name: Virginia Hernandez, Grants Officer and Jeffrey Rivas, Program Official

Via: <https://www.fedconnect.net>