



OCED & Office of NUCLEAR ENERGY

U.S. Department of Energy

Office of Clean Energy Demonstrations & Office of Nuclear Energy
with support from the National Nuclear Security Administration

Generation III+ Small Modular Reactor Pathway to Deployment

Broad Agency Announcement (BAA) Solicitation Number: DE-FOA-0003485

Applications Due: January 17, 2025

Questions about this solicitation? Email Gen3PlusSMR@hq.doe.gov.

Problems with OCED eXCHANGE? Email OCED-ExchangeSupport@hq.doe.gov

Include Solicitation name and number in subject line.

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Before you begin

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SAM.gov registration (this can take 1-2 months)

You must have an active account with [SAM.gov](#). This includes having a Unique Entity Identifier (UEI).

OCED eXCHANGE (this can take 48-72 hours)

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Registering with [FedConnect](#)® is fast and easy. Only individuals who are designated as Points of Contact in SAM.gov can create a new company account.

Apply by January 17, 2025

Applications are due by 5:00 p.m. Eastern Time.

For additional details on submitting your application see [Step 3: Submit Your Application](#).

STEP 1: REVIEW THE FUNDING OPPORTUNITY

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Basic Information

Funding Detail

Expected total available funding: \$900 million total

- Tier 1: Up to \$800 million for first mover team support (see [Executive Summary](#) for tier description)
- Tier 2: Up to \$100 million for fast follower deployment support (see [Executive Summary](#) for tier description)

Expected number and type of awards:

- Tier 1: Up to two awards through the Department of Energy's (DOE) Other Transactions (OT) authority
- Tier 2: Multiple OT awards

Expected award project period: The maximum expected project period is approximately up to 10 years for grid scale Generation III+ (Gen III+) small modular reactor (SMR) deployments and up to 5 years for Tier 2 activities.

Depending on the number and quality of Applications received, DOE may not award the full funding amount available and may issue other solicitations, subject to the availability of appropriations, to support additional strategies and approaches or incorporate lessons learned from the first round of Applications.

Statutory Authority

Consolidated Appropriations Act, 2024 (CAA 2024, Public Law 118-42)¹ and the Chips and Science Act (Chips Act, Public Law 117 – 167)². Section 311 of the CAA 2024 made up to \$800,000,000 of unobligated Infrastructure Investment and Jobs Act (IIJA, Public Law 117-58) funds available for not more than two commercial utility deployment projects for grid scale Gen III+ SMR designs (\$200,000,000 in fiscal year 2024, \$300,000,000 in fiscal year 2025, and up to \$300,000,000 in fiscal year 2026) pursuant to section 959A of the Energy Policy Act of 2005 (42 U.S.C. 16279a). Section 959A of the Energy Policy Act of 2005 allows for the use of DOE's authority to issue milestone-based Other Transaction Agreements pursuant to [42 U.S.C 7256c](#).

The CAA 2024 also made available an additional \$100,000,000 for one or more competitive awards supporting design, licensing, supplier development, and site preparation of a grid-scale Gen III+ reactor design. Subtitle P of the Chips Act (Sec. 10781), titled 'Fission for the Future,' authorizes the Secretary of Energy to establish a program to provide federal financial assistance to eligible entities to support the research, development, and demonstration of advanced nuclear concepts. Awards under this program will be milestone-based Other Transaction Agreements pursuant to 42 U.S.C. 7256(a).

¹ <https://www.congress.gov/118/bills/hr4366/BILLS-118hr4366enr.pdf>

² <https://www.congress.gov/117/plaws/publ167/PLAW-117publ167.pdf>

Agency Contact Information

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Executive Summary

Nuclear energy is the nation's largest source of carbon-free power, and it provided 48 percent of America's carbon-free electricity in 2023. The nuclear industry today is building new commercialization momentum as utilities and other potential customers see the successful operation of Vogtle Units 3 and 4, anticipate sustained load growth, and begin to take advantage of tax credits and other financial support made available by the Inflation Reduction Act. Utilities are seeking and receiving Nuclear Regulatory Commission (NRC) licensees to extend reactor operations to 80 years, planning to uprate reactor capacity, reversing plans to close reactors, and restarting formerly shuttered reactors. However, the industry must still overcome barriers to achieve commercial liftoff by securing committed investments in an orderbook of new nuclear projects and standing up the industrial base needed for fleet-level deployment.

Accelerating Generation III+ small modular reactor (Gen III+ SMR) deployments and creating a sustainable infrastructure for future fleet-level deployments offers a way to break this stalemate. Gen III+ SMR designs are expected to provide the same or improved safety, security, and environmental benefits compared to current large nuclear power plant designs while allowing for deployment of clean, firm power where large gigawatt-size reactors may not be optimal.

This solicitation offers critical opportunities to spur "first mover" teams to deploy the first Gen III+ SMRs in the United States (U.S.) and to provide funding for "fast follower" deployment support, which will address key gaps that have hindered the domestic nuclear industry. Activities funded under this solicitation are expected to create high-paying jobs for American workers, offer opportunities for broadly shared prosperity in the communities which the reactors are located, and enable a cleaner, more equitable future for all Americans.

Demonstrating the technical and commercial viability of Gen III+ SMRs with a potential for fleet level deployment will promote widespread technology implementation while supporting the Administration's objectives of (1) putting the U.S. on a path to a 100 percent clean power sector by 2035; (2) reaching net-zero emissions, economy-wide, by no later than 2050; (3) maintaining the Nation's technological leadership position in the global nuclear industry; and (4) ensuring national energy security.

To maximize the potential of these funds, DOE will offer project funding under this solicitation through two tiers:

- Tier 1 will provide up to \$800M to support up to two first mover teams of utility, reactor vendor, constructor, and end-users/off-takers committed to deploying a first plant while facilitating a multi-reactor, Gen III+ SMR orderbook and the opportunity to work with the National Nuclear Security Administration (NNSA) to incorporate safeguards and security by design into the projects.
- Tier 2 will provide up to \$100M to spur additional Gen III+ SMR deployments by addressing key gaps that have hindered the domestic nuclear industry in areas such as design, licensing, supplier development, and site preparation.

This solicitation leverages DOE's OT authority³ (pursuant to [42 U.S.C. 7256](https://www.energy.gov/management/other-transaction-authority)(a) and (g)).⁴ Milestone-based OT agreements will be used as the structure for the awards between the Department and the awardee(s) to provide flexibility around activities that will receive federal funds in the overall project structure. DOE will work with

³ Other Transaction Authority | Department of Energy, <https://www.energy.gov/management/other-transaction-authority>

⁴ Other Transaction Authority | Department of Energy, <https://www.energy.gov/management/other-transaction-authority>

project performers to tailor their specific approach after selections and anticipates that implementation approaches will vary between projects.

Table 1. Program overview. All values anticipated. Details to be determined through merit reviews and project negotiations.

Tier	Description*	Funding Provision	Anticipated # of Awards**	Anticipated Award Duration*	Anticipated Federal Funding per Award***
1. First Mover Team Support	Near-term grid-scale deployment of domestic Gen III+ SMR technologies that are reliable, licensable, commercially viable, and have a demonstrated path towards a multi-reactor orderbook. Opportunity to engage with NNSA on safeguards and security by design efforts in support of international orderbook development.	CAA 2024 Section 311(a)(1)(A)	Up to 2 Up to 2; available after award to Tier 1 recipients and teaming partners	Up to 10 years Up to 3 years	Up to \$800M total (\$200M in FY24, \$300M FY25, up to \$300M in FY26 based on milestones and funding split between awards) \$1.0M – 3M in FY25-27, plus possible in-kind support, based on milestones and funding splits between awards. Outyears subject to appropriations.
2. Fast Follower Deployment Support	Spur additional Gen III+ SMR deployments by addressing key gaps that have hindered the domestic nuclear industry in areas such as design, licensing, supplier development, and site preparation.	CAA 2024 Section 311(a)(2)	Multiple Awards	Up to 5 years	\$100M total (FY24) split between multiple awards

*For more details, see [Tier Descriptions](#).

**Depending on the number and quality of applications.

***Federal share of funds for all awards is less than or equal to 50 percent total project costs.

Eligibility

Eligible Applicants

To be considered for substantive evaluation, an applicant's submission must meet the criteria set forth below. If the application does not meet all these eligibility requirements, it will be considered ineligible and removed from further evaluation.

DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this solicitation must be submitted. The decision whether to submit an application in response to this solicitation lies solely with the applicant.

Eligible Applicants

The proposed prime awardee must meet the applicable eligibility requirements as defined for each tier below.

Tier 1: First Mover Team Support

Eligible entities will consist of a lead applicant who must be a U.S. commercial electric utility (utility), a U.S. end-user/off-taker who has teamed with a utility, a U.S. project development company who has teamed with a utility, or an incorporated consortium that includes a utility.⁵ The lead applicant's team must include a U.S. Gen III+ SMR technology vendor and a U.S. engineering, procurement, and construction (EPC) contractor. If these entities are still being finalized during selection, DOE will prioritize team finalization as early as possible and will tailor milestones as appropriate.

Gen III+ SMR technology vendors, fuel manufacturers, supply chain vendors, EPC contractors, and other domestic nuclear industry entities are eligible to participate in multiple applications under this solicitation.

The reactor technology vendor and proposed U.S. Nuclear Regulatory Commission (NRC) licensee, when determined, should also submit information to show that they are not owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government as set forth in the NRC's regulations at 10 CFR 50.38, and that their application would not be inimical to the common defense and security or public health and safety as required by 10 CFR 50.40. Foreign team members and vendors may be proposed as part of an applicant team.

Tier 2.1: SMR Site Selection and Preparation

Eligible entities under Tier 2.1 are limited to planned U.S. owners or utilities for domestic Gen III+ SMR deployment projects. Reactor technology vendors, fuel manufacturers, supply chain vendors, EPC contractors or other domestic nuclear industry entities are allowed to support the eligible entities for this tier.

Tier 2.2: SMR Supply Chain Development

Eligible entities under Tier 2.2 are limited to domestic entities looking to improve the capability, capacity, or cost competitiveness of the domestic supply chain needed for the near-term deployment of Gen III+ SMRs.

⁵ Commercial utility includes municipal, Tribal, and other government utilities, including the Tennessee Valley Authority, but does not include DOE's Power Marketing Administrations.

Tier 2.3: SMR Project Improvement

Eligible entities under Tier 2.3 are limited to planned U.S. owners or utilities for domestic Gen III+ SMR deployment projects. Reactor technology vendors, fuel manufacturers, supply chain vendors, EPC contractors or other domestic nuclear industry entities are allowed to support the eligible entities for this tier.

Other Eligibility Criteria

Domestic and Foreign Entities

For all Topic Areas, the proposed prime awardee must be domestic entities. To qualify as a domestic entity, the entity must be organized, chartered, or incorporated (or otherwise formed) under the laws of the U.S. or of a particular state or territory of the U.S.; have majority domestic ownership and control; and have a physical place of business in the U.S.

Entities that are eligible as team members or that can be contracted under this solicitation include, but are not limited to:

- Scientist or other individual with knowledge and expertise in Gen III+ SMRs;
- An institution of higher education;
- Nongovernmental organization, including Tribal entities;
- National Laboratory;
- Tribal or governmental entities;
- Private entity; and
- Partnership or consortium of two or more entities described in this list.

Federal agencies and instrumentalities (other than DOE and TVA), Federally Funded Research and Development Centers (FFRDC), and Non-DOE/NNSA FFRDCs, are eligible to participate only as a team member.

Entities banned from doing business with the U.S. government such as entities debarred, suspended, or otherwise excluded from or ineligible for participating in Federal programs are not eligible.

Entities identified on Department of the Treasury Office of Foreign Assets Control Treasury's Sanctions Program Specially Designated Nationals list are prohibited from doing business with the United States government and are not eligible. See [OFAC - Sanctions List Service \(treas.gov\)](https://www.treas.gov/sanctions).

Entities of Concern are prohibited from participating in projects selected under this solicitation (see the Entity of Concern Prohibition section for additional details and definitions).

Non-profit organizations described in Section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995, are not eligible to apply for funding. Non-profit organizations described in Section 501(c)(5) of the Internal Revenue Code are eligible to apply for funding.

Entity of Concern Prohibition

Prohibition

Entities of Concern are not eligible. DOE is prohibited by law from funding any award, grant, contract, cooperative agreement, loan, program, support, or other activity of \$10 million or more in DOE funds to Entities of Concern. In addition, such entities (including an individual that owns or controls, is owned or controlled by, or is under common ownership or control with an entity of concern) are prohibited from receiving any funds or performing work under any award involving Department activities authorized under Division A or B of Public Law 117-167, subject to certain penalties. See section 10114 of Public Law 117-167 (42 USC 18912) and section 310 of Public Law 118-42 and other applicable law for additional information.

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

Definitions

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

- (A) identified under section 1237(b) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (50 U.S.C. 1701 note; Public Law 105–261);
- (B) identified under section 1260H of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (10 U.S.C. 113 note; Public Law 116– 283);
- (C) on the Entity List maintained by the Bureau of Industry and Security of the Department of Commerce and set forth in Supplement No. 4 to part 744 of title 15, Code of Federal Regulations;
- (D) included in the list required by section 9(b)(3) of the Uyghur Human Rights Policy Act of 2020 (Public Law 116–145; 134 Stat. 656); or
- (E) identified by the Secretary, in coordination with the Director of the Office of Intelligence and Counterintelligence and the applicable office that would provide, or is providing, covered support, as posing an unmanageable threat—
 - (i) to the national security of the U.S.; or
 - (ii) of theft or loss of U.S. intellectual property.

Milestones and Costs

The DOE award contribution can never exceed 50 percent of total project cost. At every point in time from the initiation of the award, the applicant must have contributed at least 50 percent of the total project costs incurred from the time of award. DOE requires applications to include proposed milestones with defined work scope and related milestone payments and to include in their application a project spend plan which shows the total anticipated project cost at the time of each milestone completion. DOE will review and evaluate the applications to ensure that the requested milestone payments adhere to this requirement. DOE may give preference to applications where the applicant team proposed substantially more applicant project cost share as part of the program policy factors. Applicant project cost share must come from non-federal sources, such as private investment from project participants, state or local governments, or third-party financing, unless otherwise allowed by law.⁶

Eligible applicant teams will be paid upon the successful completion of pre-negotiated milestones. The integral amount of federal payments made to the applicant team upon each milestone completion cannot be more than 50 percent of the costs incurred from the time of award to that milestone payment. For example, at the completion of the third milestone, if all three milestone payments amount to \$100 million, then the applicant must ensure minimum total project cost incurred through completion of the third milestone is equal to or exceeds \$200 million. DOE expects the project teams to propose milestone timing and amounts that account for this cost share constraint and to include in their application a project spend plan which shows the total anticipated project cost at the time of each milestone completion.

Federal financing, such as DOE Loan Guarantees, cannot be leveraged concurrently with this award by applicants to pay project costs. Generally, realized tax credits may be used for project costs.⁷

Each project team is free to determine how to best allocate project costs among the team members. The amount contributed by individual project team members for each milestone may vary.

The prime awardee is responsible for costs relating to each milestone and the project overall. DOE encourages the prime awardee to achieve cost savings throughout the project life cycle. However, should cost savings be realized such that the agreed upon DOE share would exceed 50 percent of the project at any point during the award, the prime awardee will be responsible for notifying DOE and agreeing to a reduced milestone payment. In this event, subsequent milestone payments could be renegotiated to account for a reduced milestone payment provided overall spending allows for at least 50 percent non-federal contribution. If the funding agreement is terminated prior to the successful completion of a milestone, the prime awardee will be responsible for the total expenditures incurred.

Limitation of Number of Applications Eligible for Review

An entity may submit more than one application to this solicitation and to more than one tier provided each application describes a uniquely distinct project.

⁶ EPCA05 Section 988 (d)(1)(E) provides that any funds received under the power program of the Tennessee Valley Authority (except to the extent that such funds are made available under an annual appropriation Act) is allowable as non-Federal cost share for TVA.

⁷ Tax credits authorized by the Inflation Reduction Act of 2022 (P.L. 117-169) are considered a non-federal source and are not a federal award.

Program Description

Purpose

This solicitation makes available approximately \$900 million in federal funds for projects that will create a credible and sustainable pathway to fleet-level deployment of Gen III+ SMRs. Gen III+ SMRs can provide around-the-clock electricity or process heat to meet the increasing demand for clean, reliable, firm electricity generation or process heat required by U.S. industries.

In particular, SMRs offer the potential for modularity, factory construction, and scalability to meet demand. Additionally, Gen III+ SMRs may be able to revitalize and leverage the service and supply chain infrastructure supporting the existing fleet of light water reactor designs, thus providing a near-term path for new nuclear deployments. However, a demonstration project is critical to overcoming the first-of-a-kind commercial adoption challenges for Gen III+ SMR technology, including:

- **Cost Reliability** – Delivered cost of recent reactor projects, including cost-overruns and project non-completion, has constrained nuclear energy relative to competing baseload technologies, such as natural gas.
- **Resource Maturity** – Multiple factors have hindered adoption including:
 - Capital Flow – Delays and non-completion of past nuclear projects has resulted in capital flow constraints, where the return of capital and return on capital are on time horizons that inhibit investors and significantly impact an owner's credit rating.
 - Project Development, Integration, and Management – There is no leading constructor for new nuclear projects and the lack of integrated project delivery models has constrained prior projects.
 - Manufacturing and Supply Chain – The current domestic nuclear supply chain faces severe bottlenecks on long-lead procurements for major project components. This lack of resilience in capacity, capability, and cost competitiveness is forcing procurements overseas.
 - Workforce – The limited number of nuclear-qualified workers, such as welders and plant operators, presents a challenge to scaling nuclear deployments.
- **Licensing Uncertainty** – The risk of licensing new technologies, including the timeframe and cost associated with receiving NRC approval of new nuclear designs, drives hesitancy for potential adopters.

Funding applications will be selected based on the expectations and details described throughout this solicitation. Priority will be given to projects with (1) the highest probability of a successful deployment, (2) the greatest potential to develop a Gen III+ SMR orderbook, and (3) the greatest potential contribution to the resilience of the domestic nuclear industry.

Terminology

Projects funded through this solicitation will be near-term commercial deployments of a Gen III+ SMR technology in the U.S. and efforts that address key gaps which have hindered the domestic nuclear industry in areas such as design, licensing, supplier development, and site preparation.

For the purposes of this program, the following terms are defined:

An **Early Site Permit (ESP)** is defined by the NRC as a permit granted by the NRC to approve one or more proposed sites for a nuclear power facility, independent of a specific nuclear plant design or an application for a construction permit or combined license. An ESP is valid for 10 to 20 years but can be renewed for an additional 10 to 20 years.

An **end-user/off-taker** is defined as any entity that will use the electrical energy or heat generated by the plant either through an established electrical distribution grid or directly from the plant, or a load-serving entity that directly serves ratepayers.

A **Gen III+ SMR** is defined as a nuclear fission reactor that: (1) uses light water as a coolant and low-enriched uranium (LEU) as a fuel; (2) has a single-unit net electrical power output between 50 – 350 mega-watts electric (MWe) as part of a single-unit or multi-unit plant with no restriction on the total plant power output; (3) maximizes factory fabrication approaches; and, (4) includes significant improvements compared to reactors operating on December 27, 2020, including improvements such as--

- (i) additional inherent safety features;
- (ii) lower waste yields;
- (iii) improved fuel and material performance;
- (iv) increased tolerance to loss of fuel cooling;
- (v) enhanced reliability or improved resilience;
- (vi) increased proliferation resistance;
- (vii) increased thermal efficiency;
- (viii) reduced consumption of cooling water and other environmental impacts;
- (ix) the ability to integrate into electric applications and non-electric applications;
- (x) modular sizes to allow for deployment that corresponds with the demand for electricity or process heat; and
- (xi) operational flexibility to respond to changes in demand for electricity or process heat and to complement integration with intermittent renewable energy or energy storage.

An **incorporated consortium** is defined as an independently governed group of two or more entities with the shared objective of achieving fleet-level domestic commercial deployments of Gen III+ SMRs. Incorporated consortia must establish an internal governance structure and a written set of internal rules that will be shared with the Department. For the purposes of this solicitation, the incorporated consortium must include a U.S. commercial utility, and must be incorporated at the time of award.

A **project development company** is defined as a corporation, limited liability company, or partnership that develops, constructs, and owns power generation or other energy infrastructure projects. Example responsibilities of a project development company include strategic site assessment, land origination, project financing, permitting, interconnection, offtake contracting, equipment purchasing, and/or EPC contractor selection.

A **reactor technology vendor** is defined as a company or organization that designs nuclear reactor power plant systems to be sold or operated as part of a nuclear power plant installation project. Example responsibilities of a reactor technology vendor include designing nuclear reactor components (nuclear island) and/or balance of plant systems.

A **U.S. commercial utility (utility)** is defined as a person, individual or a corporation, or federal, Tribal, state, local/municipal agency or corporation, including the Tennessee Valley Authority (TVA), that sells electric energy.

General Expectations for Both Tiers

The primary objective of the Gen III+ SMR Pathway to Deployment program is to focus DOE and non-federal resources on a credible and sustainable pathway to fleet level deployment of Gen III+ SMRs by both accelerating the deployment of the first Gen III+ SMRs in the U.S. and enabling “fast follower” deployments by addressing key gaps that have hindered the domestic nuclear industry in areas such as design, licensing, supplier development, and site preparation. Applications made under this solicitation must describe how they will accelerate Gen III+ SMR deployments and support the development of the initial Gen III+ SMR orderbooks.

Each award will be made under one of two tiers within the funding identified in [Table 1](#). All major systems used in both tiers are expected to be at a Technology Readiness Level (TRL) of 6 or higher at the start of the project as defined in [DOE Guide 413.3-4A, U.S. Department of Energy Technology Readiness Assessment Guide](#).

Each application to this solicitation must show how the proposed project will result in or contribute to the actual construction and operation of one or more Gen III+ SMRs through plans to:

- Demonstrate favorable technical capabilities, a deployable timeline, economic impacts, and its potential for timely replicability in other facilities or sites to support follow on deployments,
- Earn and sustain the support of the local community and any federally recognized Tribal Nations,
- Support the creation and retention of domestic high-paying, stable, industrial sector jobs that will support broadly shared prosperity in the communities in which the facilities are located, and
- Contribute to energy and national security by, for example, reducing dependence on foreign products or positioning U.S. industry for long-term competitiveness.

More details on each of these requirements are provided in subsequent sections of this solicitation.

Award and Milestones

Awards selected under this solicitation will be milestone-based awards. Specific project milestones for each awardee, including number and timing, will be negotiated on a project-by-project basis to produce the best possible balance between project outcomes and DOE risk exposure. Examples of factors that may be considered as part of such negotiations include project and risk management processes, team capabilities, project cost estimates, financial contingencies, community benefits commitments, and engagement of independent monitors such as Independent Engineers and/or community benefits consultants.

All milestones must address major project events and be capable of independent verification for quality and completeness. For example, a milestone for the submission of a permit or license request to the NRC is not considered acceptable because it does not include the NRC's verification of quality or completeness; however, a milestone for the NRC's docketing or issuance of a permit or license is considered acceptable.

Award payments will be scheduled to occur upon the successful completion of award milestones. Notional milestones based upon anticipated activities in each tier are discussed in the sections below.

Project Continuation Between Milestones

All projects selected under this solicitation will be eligible to continue forward in the award pending the successful execution of previous milestones. DOE is not planning a competitive down-select process among projects after awards are made. If DOE determines that the project is making insufficient progress in meeting the negotiated milestones, additional scrutiny and oversight by DOE or its representatives may be employed, and corrective measures negotiated. DOE will work with the awardee to determine what data are required to evaluate whether the project should continue. This may include data regarding technological, environmental, economic, market, workforce, community benefits, and other components of the project's activities. DOE reserves the right to discontinue an award for failure to achieve negotiated milestones.

National Environmental Policy Act (NEPA)

DOE's decision whether and how to distribute federal funds under this program is subject to NEPA (42 U.S.C. §§ 4321 et seq.). NEPA requires federal agencies to consider the environmental effects of their proposed actions in their decision-making processes and inform and engage the public in that process. For additional background and guidance on NEPA, refer to the DOE NEPA Website, <https://www.energy.gov/nepa> or <https://ceq.doe.gov/index.html>.

While NEPA compliance is a federal agency responsibility and the agency is responsible for the accuracy, scope, and content of any environmental documents, all selectees selected for negotiation of an award will be required to assist in the timely and effective completion of the NEPA process. For projects that require environmental assessments (EAs) or environmental impact statements (EISs), sponsors will be directed to use project funds to hire a third-party NEPA contractor to prepare EA or EIS under the supervision of DOE, and DOE will independently evaluate the EA or EIS and take responsibility for the contents.

DOE has and will continue to collaborate with the NRC on all projects where DOE's funding and NRC's jurisdiction overlap. NEPA compliance activities will be tailored to each project awarded under the forthcoming funding opportunity; NEPA compliance activities should be accounted for in the project scope,

schedule, and budget. For additional background and guidance on NEPA refer to the DOE NEPA Website <https://www.energy.gov/nepa> or <https://ceq.doe.gov/index.html>.

National Historic Preservation Act (NHPA)

DOE must comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA) prior to deciding whether or how to distribute federal funds. Section 106 requires DOE to identify and consider adverse effects to historic properties that are listed in or eligible for listing in the National Register of Historic Places. DOE will perform a NHPA review under the umbrella of its NEPA review and will require applicants to assist in this review and consider impacts to historic properties.

DOE Order 144.1A American Indian Tribal Government Interactions and Policy

This Policy sets forth the principles to be followed by DOE to ensure an effective implementation of a government-to-government relationship with American Indian and Alaska Native Tribal governments. The Policy is based on the United States' Constitution, treaties, Supreme Court decisions, Executive Orders, statutes and existing federal policies, Tribal laws and the dynamic relationship between Indian nations and federal government ([DOE Order 144.1: Department of Energy American Indian Tribal Government Interactions and Policy \(2009\)](#)).

Tier 1: First Mover Team Support

Tier 1, funded by section 311 (a)(1), paragraphs (A) and (B), of the CAA 2024 will fund the near-term grid-scale deployment of domestic Gen III+ SMR technologies. It will provide funding for up to two Gen III+ SMR projects that are reliable, licensable, commercially viable, financeable, and have a demonstrated path towards a multi-reactor orderbook.

The reactor designs selected for Tier 1 are expected to be technologically mature and close to a final design (i.e., at a Technology Readiness Level (TRL) of 6 or higher – see TRL scale from [DOE Guide 413.3-4A, U.S. Department of Energy Technology Readiness Assessment Guide](#)). For the purposes of this award, being in a final design state indicates that the design is sufficiently mature to begin procurement or construction activities. DOE expects that the applicant will be able to clearly exhibit that by the early 2030s it would be able to complete the appropriate permitting, certification, and licensing reviews/activities with the NRC; secure community support; provide a strategy for securing financing for the reactor project; finalize design before major construction; execute long-lead procurements; develop operational programs and complete operator training; demonstrate supply chain readiness; establish an EPC contract; construct the reactor; and perform start-up and testing to assure the Gen III+ SMR is operational and producing electrical power and/or process heat at capacity (with limited and scheduled outages). With a near-term deployment schedule in the early 2030s, a potentially successful applicant would likely need to have commenced some level of pre-application engagement with the NRC by the time of application.

The applicant should highlight if any items are needed to complete the final design or mitigate licensing or operations risks, such as:

- Modeling and simulation of the design to address potential operational and safety issues;
- Development of innovative plant safety systems;
- Prototyping and/or manufacture of major components or systems to prove the ability to design and operate innovative capabilities;
- Development of plant control and protection systems, including plant simulators and operator training programs;
- Demonstration of prototypes or sub-scale reactors, or the build-out of test facilities to demonstrate a portion of the reactor as part of an overall reactor system; and/or,
- Development of schematics, diagrams, and layouts of the plant configuration.

Projects supported by Tier 1 must be licensed by the NRC, and therefore cannot be inimical to the common defense and security or public health and safety as required by 10 CFR 50.40. The applicant must describe their approach to addressing the environmental requirements in 10 CFR 51, as well as the specific NRC licensing safety process selected, such as a construction permit and operating license under 10 CFR Part 50 or a combined license under 10 CFR Part 52. The applicant should highlight the current status, if any, on the development and submittal of applications for a design certification, early site permit, construction permit, operating license, and/or combined license, depending on the preferred licensing pathway.

Projects will be reviewed and ranked based on the level to which the following attributes are demonstrated:

- Realistic and detailed timeline for deployment;
- Teams that include legally binding agreements between a utility (or utilities), reactor vendor, end-users/off-takers (if applicable), and EPC contractor, which has evaluated constructability of design, availability of a skilled workforce, and other important factors for a successful deployment;
- Documented agreement on pursuing a Gen III+ SMR technology with a replicable design for multiple reactor deployments, domestically and / or internationally;
- Portion of the electricity, steam, or other form of power to be produced by the Gen III+ SMR(s) contracted for offtake;
- Economic competitiveness analysis of the reactor project relative to existing electric generation options;
- A strategy for financing the reactor project, including the anticipated sources of funding and a breakdown between debt and equity levels at each project stage;
- Identified mechanism(s) to manage a complex project, including strategies to manage changes to team member composition, to avoid or mitigate cost and schedule overruns, and to manage changes to offtake commitments;
- Maturity of current project cost and schedule estimates;
- Significant pre-application engagement with the NRC, a regulatory engagement plan, and/or submittal of a license application to the NRC;
- A plan for ongoing, meaningful engagement with the host community, workforce, and other stakeholders, as well as with impacted or potentially impacted Tribal Nations, that will result in the delivery of benefits in line with local priorities;
- A plan for an orderbook of multiple reactor deployments, any documented agreements on offtake or follow-on orders for subsequent deployments, and a timeline for how procurements and construction – including availability of a skilled workforce– would be navigated for each subsequent project;
- A plan for how first-of-a-kind learnings will be leveraged to facilitate cost reductions in nth-of-a-kind projects;
- Use of domestic supply chains with demonstrated capacity and capability to support planned orders as well as potential future growth, to the extent possible including total amount of goods and services to be acquired domestically versus internationally; and,
- Timeliness of the proposed deployment, including mechanisms such as use of an existing nuclear site with the potential for expansion or existing engagement with the NRC including pre-application engagement, submission of a permit or license application, and/or receipt of design certification.

DOE will weigh the financial and commercial viability of the proposed projects when ranking applications, including an applicant's ability to complete the reactor project leveraging the Department's existing

appropriations and authorizations. For details about how these factors will be considered in application review, see [Application Review Information](#) section.

Awards made under this tier may be configured in such a way to allow awardees to access financing from the Loan Programs Office (LPO) for later stages in the project, such as construction and start-up testing (see [Integration with LPO](#) section for more information). Applicants should specify how they plan to complete the project using any combination of the following:

- Additional non-federal support, such as private investment and/or state and local public incentives
- Private risk-sharing mechanisms, such as agreements among team members or insurance products
- Loans*
- Tax credit revenue

*Applicants that intend to seek LPO financing should specify how they plan to complete the project both with and without LPO financing. A viable strategy to finance the project cannot be predicated on the assumed receipt of LPO financing.

Integration with LPO

LPO provides attractive debt financing for high-impact, large-scale (e.g., \$100M+) energy infrastructure projects in the U.S. The office has billions of dollars in loan authority available through Title 17, Section 1703, Innovative Energy and Innovative Supply Chain, and Section 1706, the Energy Infrastructure Reinvestment Program. To qualify for 1703, energy projects must either involve innovative technologies or be paired with investments from State Energy Financing Institutions. To qualify for 1706, energy projects must retool, repower, repurpose, or replace energy infrastructure; 1706 also allows for projects that enable existing energy infrastructure to be upgraded to reduce their greenhouse gas emissions. Eligible project types include constructing new reactors. Across the supply chain, eligible project types include fabrication and nuclear component manufacturing. Note that presently, authority available under Section 1706 needs to be designated for Conditional Commitment on or before September 30, 2026, after which time the authorization expires.

Loans can be direct loans from the Federal Financing Bank (FFB) backed by a 100 percent “full faith and credit” DOE guarantee with no minimum or maximum loan size and flexible structures. The loan amount may be up to 80 percent of eligible project costs. LPO debt must be senior secured or pari passu with senior secured debt, however, LPO can consider lending unsecured to investment grade utilities that do not have the ability to issue secured debt.

For details on LPO loan pricing, visit <https://www.energy.gov/lpo/articles/pricing-lpo-financing-program>.

LPO engages early with applicants and remains a partner for the lifetime of the loan through a six-step process, outlined as follows:

1. Pre-Application – LPO meets with the potential applicant to discuss project eligibility, application process, and applicant questions.

2. Application and Review – This step occurs in two parts. In Part I, LPO establishes project eligibility and readiness to proceed. In Part II LPO conducts programmatic, technical, and financial evaluations.
3. Due Diligence – LPO and the applicant engage third-party advisors and negotiate a term sheet.
4. Conditional Commitment – LPO offers a term sheet for the loan guarantee. The offer is contingent on the borrower satisfying certain conditions.
5. Financial Close – LPO and the borrower execute definitive financing documents, subject to additional conditions precedent to loan disbursements.
6. LPO Monitoring – LPO monitors the project and acts as a trusted partner for the life of the loan, acting in the best interest of the U.S. Government and taxpayers.

LPO Title 17 loans are subject to a “denial of double benefit” or “federal support” restriction which prohibits the same project from receiving both federal grants and loans concurrently. Since this solicitation will use milestone-based payments with discrete activities and timing, it is feasible that the award scope of work could be clearly distinguished and separable from the scope of project activities and costs financed by a potential LPO loan. For example, a project team could receive grant funding for technology development and after that has been completed, an LPO loan could finance a specific reactor plant deployment. However, this determination will require analysis of project specific attributes and receipt of an award, or successful completion of milestones has no bearing on eligibility for, or issuance of, LPO financing.

Tier 1 Award and Potential Milestones

Milestones selected for Tier 1 should be a subset of, or all of, the significant events that occur during the design, licensing, and/or construction phase of deploying a Gen III+ SMR. Applicants should define the milestones for which they seek award, which notionally may include:

- Reactor technology design selection, if necessary;
- Completion of preliminary reactor design;
- Completion of important project planning and guidance documents, such as project management plans or quality assurance plans;
- Completion of Association for the Advancement of Cost Engineering (AACE) Class Project Cost Estimates as verified for accuracy and quality by an Independent Cost Review (ICR);
- Docketing of license applications by the NRC;
- Completion of a community engagement plan with tangible outcomes, such as negotiating community benefits agreements tailored to the host community;
- Formalization of legally binding workforce agreements, such as project labor agreements⁸ or community workforce agreements;
- Site selection and completion of subsequent site characterization activities;

⁸ A project labor agreement is a pre-hire collective bargaining agreement consistent with section 8(f) of the National Labor Relations Act (29 U.S.C. 158(f)).

- Establishment of a binding agreement among team members on how the private sector will navigate the potential for cost overrun risk;
- Completion of DOE and NRC required National Environmental Policy Act analysis including Section 106 of the NHPA, i.e., issuance of a Categorical Exclusion, Finding of No Significant Impact, or Record of Decision;
- Signed contracts for important long-lead procurements;
- Signed, high-quality and commercially viable offtake contracts that fully subscribe the power to be produced by the Gen III+ SMR(s);
- Receipt of an amended standard contract for spent nuclear fuel to be produced by the facility;⁹
- NRC approval of applications for a Construction Permit, Operating License, Design Certification or Combined License;
- Signed contract with EPC contractors with experience in large industrial plant construction;
- Completion of reactor project constructability assessments by an EPC;
- Securing financing for the project and/or receiving associated approvals, such as preliminary or final investment decisions or closing on a loan to fund the project;
- Start of nuclear construction;
- Power plant start up testing; and/or
- Commercial operation.

When proposing milestones, the applicant must explain how the set of milestones will accelerate their project towards deployment. If the applicant proposes a subset of milestones that amount to only a partial deployment, such as site development, reactor design finalization, and early long-lead procurements, the applicant must also explain their strategy for obtaining the additional capital necessary to complete the proposed project. This explanation must also identify mechanisms necessary to mitigate the cost and schedule risk associated with construction.

When designing milestones, the applicant need not have all milestones set to the same time period. The applicant must propose a maximum length of time for each milestone. If a milestone is completed in advance of that time, DOE will review deliverables in a timely manner and decide on proceeding to the next negotiated milestone.

Tier 1 Awardee Opportunities with the National Nuclear Security Administration for International Safeguards & Security by Design Support

Tier 1 Awardee(s), and their teaming partners, will have the opportunity to work with the DOE's National Nuclear Security Administration (DOE/NNSA) to integrate international safeguards and security considerations into the project. Incorporating robust safeguards and security measures into the Gen III+

⁹ Standard Contract Amendment for New Reactors, U.S. Department of Energy, <https://www.energy.gov/media/326840>.

SMRs to prevent nuclear weapons proliferation or the theft of nuclear materials and facility sabotage would position an SMR not only as a market leader but also as an “exportable product” that is compliant with international legal agreements, deployment-ready, scalable, and competitive on a global scale.

There are U.S. and international legal requirements under the Nuclear Nonproliferation Treaty, the Atomic Energy Act, and the Convention on the Physical Protection of Nuclear Material and its Amendment that have legally binding requirements related to safeguards and security, as implemented by the International Atomic Energy Agency (IAEA) and host nations. The ability to offer Gen III+ SMRs that are safe, secure, and cost-effective will set a global standard that reinforces the U.S.’s reputation of leadership in nuclear technology, nonproliferation, and security.

Awardee engagement opportunities with DOE/NNSA can take the form of:

- 1) **direct funding** to Tier 1 Awardee(s) and/or
- 2) **technical assistance** through in-kind support for resource teams comprised of Subject Matter Experts (SMEs) from various DOE and NNSA national laboratories in support of international safeguards and security.

The detailed work packages will be tailored to the project approach proposed by the successful Awardee(s).

The DOE/NNSA resource team would aid in establishing a Safeguards and Security by Design (SSeBD) Program as part of a Quality Assurance Program that will identify the safety, security, and safeguards interface points to drive a more intrinsically secure design via the following assistance options.

Foundational Assistance:

- **Human Resource Development & Training:** Establishing a cross-discipline safety, security, IAEA safeguards, and cybersecurity for nuclear facilities training program for technical employees to establish an integrated team.
- **Regulatory Requirements & Crosswalks:** Collaborate to conduct regulatory crosswalks (i.e., US, IAEA, international regulators) and Design Basis Threat sensitivity awareness that could impact project risk.

Security by Design Technical Assistance:

- **Asset and facility characterization:** Develop a sabotage logic model (leveraging existing safety analysis) to develop vital equipment, vital areas and target sets, leading to Physical Protection System (PPS) design requirements.
- **PPS design reviews:** Will provide an opportunity for national laboratories experts to review and validate designs developed by the Awardee; assistance for scalability, integration, and obsolescence can be included.
- **Cybersecurity integration:** To ensure consequence focused designs, design simplification, and secure information architecture at the design level, and digital asset awareness, planned resilience, and interdependency evaluation at the organizational level.

- **Technical basis document library:** Support for pre-licensing engagement in the development of analysis to support whitepapers, leadership business case and economic analysis, or application national laboratories technical and data resources.
- **Country and regional profile and engagement support:** Provide country profile on regulatory infrastructure and relevant agreements to assist company's country engagements by request. This can include awareness of representative risks in region to help with design of protection-related elements.

International Safeguards by Design Technical Assistance:

- **Priority engagement with IAEA on safeguards for awardee designs:** Tier 1 Awardee(s) have the opportunity to be put forward to the IAEA for design-specific consultations. DOE/NNSA will facilitate and coordinate discussions with IAEA and the awardee on safeguards approaches for Tier 1 Awardee facilities.
- **International Nuclear Safeguards Assessments:** High-level safeguards assessment of a vendor's Gen III+ SMR designs, with increasing specificity as the design and the project mature.
- **Demonstration of international nuclear safeguards technologies:** Showcase advanced tools and approaches at vendor's Gen III+ SMR demonstration facility.

For additional information on how this opportunity will be incorporated into the evaluation and selection process, applicants should reference Step 4: Learn More about Evaluation and Selection.

Tier 2: Fast Follower Deployment Support

Tier 2, funded by section 311 (a)(2) of the CAA 2024, will fund efforts to reduce key barriers to achieve the first order-book for Gen III+ SMRs that can be deployed in the early 2030s and to advance the goals of the Fission for the Future authorization.¹⁰ Efforts in this tier will improve the domestic nuclear industry ability to commercialize their products and achieve nth-of-a-kind (NOAK) pricing for new nuclear deployments. This includes improvements in design, licensing support, supplier development, and site preparation. In furtherance of these initiatives, this tier is further divided into three sub-sections. Allocation of projects between tiers will be based on the merits of the individual applications. In addition to the project attributes outlined below, preference will be given to projects based on:

- Whether an entity is working to achieve a committed orderbook for project(s) to be deployed in the early 2030s, including the degree to which the proposed project accelerates follow-on deployments for the team(s) selected under Tier 1
- The extent to which project success will promote growth of the domestic nuclear industry
- The criteria in part (d) of the Fission for the Future authorization¹¹

DOE will look for applications that account for a region's overall capabilities and shared assets, and leverage synergies across public and private efforts at all levels, to the extent allowed by law.

Proposed milestones for Tiers 2.1, 2.2, and 2.3 should be significant events that occur during the course of the project. When proposing milestones, the applicant must explain how the selected set of milestones work to support the near-term domestic deployment of Gen III+ SMRs. All milestones must address major project events and be capable of independent verification for quality and completeness.

Notional milestones based upon anticipated activities in each tier are discussed below.

Tier 2.1: SMR Site Selection and Preparation and Notional Milestones

Tier 2.1 will fund siting initiatives that can help lead to the build-out of near-term multi-reactor orderbooks of Gen III+ SMRs beyond the first-of-a-kind (FOAK) plant. Proposed projects must include a tangible outcome/product and demonstrate a path to improve the level of understanding and/or reduce key risks for sites potentially being considered in the near-term deployment of Gen III+ SMRs. For example, efforts could include the issuance of Early Site Permits, site characterization studies, or feasibility studies (to include coal-

¹⁰ The Fission for the Future initiative is working to engage with States, Tribes, local governments, utilities, and private entities to accelerate the deployment of advanced reactors and its associated infrastructure. Communities with retiring or retired fossil fuel generation facilities will be prioritized as will support for non-electric applications such as heating, hydrogen production, systems integration, and industrial processes. Efforts through the Fission for the Future initiative are intended to drive clean energy generation, maintain the workforce, and support economic development.

¹¹ <https://www.congress.gov/117/plaws/publ167/PLAW-117publ167.pdf>

to-nuclear) to evaluate the advantages or disadvantages of potential sites for new nuclear. Tier 2.1 projects can be used to assist with building an orderbook for Tier 1 applicants. Projects to conduct a feasibility study should be conducted for multiple sites (e.g., at a state or regional level) and should not be limited to solely one individual site.

Milestones for Tier 2.1 must advance the ability to site follow-on Gen III+ SMR projects to help fulfill a committed orderbook. The siting initiatives proposed do not need to be related to the reactor technologies that are ultimately selected in Tier 1 projects but could be used to help build an orderbook for Tier 1 technologies. Notional milestones could include:

- Docketing and/or issuance of an Early Site Permit¹²
- Completion of a site characterization study
- Completion of a feasibility study

Tier 2.2: SMR Supply Chain Development and Notional Milestones

Tier 2.2. will fund initiatives that accelerate the cost/schedule-competitiveness, technical capability, and/or industrial capacity of the U.S. nuclear supplier industrial base in support of future Gen III+ SMR deployments. Example projects include acquiring N-Stamp or NQA-1 Certification, increasing domestic modular fabrication capabilities and/or capacities, and developing and/or improving domestic fabrication capabilities and/or capacities for component fabrication. For component suppliers, priority will go to entities that intend to leverage their new capabilities or capacities to establish a training program to reduce barriers to entry for other domestic entities into the field. Tier 2.2 projects can be used to assist with building an orderbook for Tier 1 applicants.

Milestones for this tier must improve the capability, capacity, or cost/schedule competitiveness of the U.S. nuclear industrial supply chain. Supply chain improvements must benefit the deployment of Gen III+ SMRs but may also benefit the development and deployment of other reactor technologies. For example, capacity improvements for reactor heavy equipment components or steam generator components would benefit Gen III+ SMRs but may also provide a benefit for the development or deployment of other nuclear technologies. Notional milestones may include:

- Receipt of N-Stamp or NQA-1 Certification
- Complete buildout of new domestic capabilities or capacities needed for the domestic near-term deployment of Gen III+ SMRs
- Complete Operator Training
- Commercial operation of added capability or capacity

¹² Early Site Permit (ESP) as defined by the Nuclear Regulatory Commission (NRC). Visit <https://www.nrc.gov/reading-rm/basic-ref/glossary/early-site-permit-esp.html>.

- Initiation of training program, using added capabilities or capacities to reduce the burden for entry for other domestic entities into the field

Tier 2.3: SMR Project Improvement and Notional Milestones

Tier 2.3 will fund efforts that increase the confidence of cost and schedule estimates of Gen III+ SMR projects, beyond those selected in Tier 1. Each award will require the delivery of one or more Project Cost Estimates and Integrated Project Schedules to DOE for review, as well as the completion of independent reviews that find no critical issues. Cost estimate and schedule reviews that have been successfully completed will have a ceiling amount of \$1,500,000 per completed set of cost estimate and schedule. The independent reviews will be funded outside of the awards with the awardees and would not require cost-sharing. Award scope will be negotiated with the Department as a part of the award, but the Department expects proposed scope to include the submittal and review of appropriate levels of Association for the Advancement of Cost Engineering (AACE) project cost estimates and associated integrated project schedules.

Independent reviews of Project Cost Estimates will consider, among other things, the U.S. Government Accountability Office’s (GAO) “Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs” (GAO-20-195G)¹³ in the conduct of its review.

Milestones for this tier are intended to improve the confidence of cost and schedule estimates for Gen III+ SMR projects. Each application must include the delivery of a Project Cost Estimate and Integrated Project Schedule to DOE for review, as well as the completion of an independent review with no critical issues. If an applicant intends to submit multiple cost and schedule estimates, each set of milestones should represent an increased level of maturity and reduced uncertainty. Notional milestones could include:

- Submittal of an AACE Class 3 Project Cost Estimate with a Level 3 Integrated Project Schedule.
- Completion of an independent review to verify the accuracy and quality of the AACE Project Cost Estimate and Integrated Project Schedule.

Award Information

Anticipated Type of Award:	Tier 1: Other Transaction Agreement Tier 2: Other Transaction Agreement
Application Type(s) Allowed:	New
Estimated Number of Awards:	Tier 1: Up to 2* Tier 2: Multiple awards* *Dependent on the number and quality of the applications received.
Anticipated Funding Amount:	Tier 1: Up to \$800M (\$200M in FY24, \$300M in FY25, and up to \$300M in FY26) Tier 2: Up to \$100M (\$100M FY24); specific break-out of funding in

¹³ <https://www.gao.gov/products/gao-20-195g>

sub-sections dependent on quality and quantity of applications received

Award Budget: Application budgets are limited to the maximum amount of DOE share per project by tier.

Award Project Period: Tier 1: Up to 3 – 10 years
Tier 2: Up to 1 – 5 years

Other Transaction Agreements

An Other Transaction (OT) is a **legal agreement** with DOE that is generally defined by what it is not:

- ***It is not*** a contract or financial assistance agreement used by the federal government to obtain supplies and services or support a public purpose.
- ***It is not*** subject to most acquisition laws and acquisition and financial assistance regulations.
- ***It is not*** a Partnership Intermediary Agreement (PIA) under Title 15 U.S.C. 3715, Use of Partnership Intermediaries.
- ***It is not*** a Prize Competition, which has separate statutory authorities.

Pre-Award Costs

Because this project is being structured on a milestone payment basis, no pre-award costs will be paid. DOE intends to limit the negotiation of milestone activities to future action necessary for successful completion of the project objectives. DOE will not pay prior incurred costs as part of the milestone structure.

1. REVIEW

2. GET READY

3. SUBMIT

4. SELECTION

5. REQUIREMENTS

6. CONTACTS

STEP 2: GET READY TO APPLY

IN THIS STEP

Application Contents and Format

Tier 1: Application Contents and Format

Section	File Naming Convention	Page Limit	Format
Cover Page	ControlNumber_LeadOrganization_CoverPage	1	PDF
Technical Volume			
Project Narrative	ControlNumber_LeadOrganization_ProjectNarrative.pdf	40	PDF
Financing	ControlNumber_LeadOrganization_Financing.pdf		PDF
Licensing and Construction Strategy	ControlNumber_LeadOrganization_LicensingConstruction.pdf		PDF
Non-Technical Content			
Management Team and Program Partners	ControlNumber_LeadOrganization_MgmtPartners.pdf	5	PDF
Community Benefits Plan	ControlNumber_LeadOrganization_CBP.pdf	5	PDF
Impacted Indian Tribe Documentation	ControlNumber_LeadOrganization_IMT_Doc.pdf	N/A	PDF
Letters of Commitment	ControlNumber_LeadOrganization_LOCs.pdf	N/A	PDF
Resumes	ControlNumber_LeadOrganization_Resumes.pdf	3 pages each	PDF
Transparency of Foreign Connections	ControlNumber_LeadOrganization_TransparencyFC.pdf	N/A	PDF
Foreign Entity Waiver Requests and Foreign Work Waiver Requests	ControlNumber_LeadOrganization_Waiver.pdf	N/A	PDF
Current and Pending Support	ControlNumber_LeadOrganization_CPS.pdf	N/A	PDF
Potentially Duplicative Funding Notice	ControlNumber_LeadOrganization_PDFN.pdf	N/A	PDF

Document Format Requirements

Your submission must conform to the form and content requirements described in this section, including maximum page lengths. A Control Number will be issued when you begin the OCED eXCHANGE application process. The Control Number must be included with all Application documents. The Control Number must be prominently displayed on the upper right corner of the header of every page and included in the file name (i.e., Control Number_Applicant Name_Application).

- Each document must be submitted in **Adobe PDF** format unless otherwise stated.
- Include assigned **Control Number** in upper right corner of the header of every page along with the file name.
- Page numbers must be included in the footer of every page.
- You must not exceed the specified page limit. DOE will only review the authorized number of pages.
- All documents must be written in **English** language.
- All pages must be formatted to fit 8.5 inch-by-11 inch paper with margins no less than one inch on all sides.
- Use Calibri typeface, **black** font color, font size of **12 point** or larger. Figures and tables may use 10-point font.
- References must be included as footnotes or endnotes in a **font size of 10** or larger. Footnotes and endnotes are counted toward the maximum page requirement.
- Documents should not contain hyperlinks to external websites or references. Any links included will not be reviewed by DOE.
- The maximum file size that can be uploaded to the OCED eXCHANGE website is **50 megabytes (MB)**. Files in excess of 50 MB cannot be uploaded, and hence cannot be submitted for review.
- If a file exceeds 50 MB but is still within the maximum page limit specified in the solicitation, it must be broken into parts and denoted to that effect.

Application

Contents

- [Cover Page](#)
- [Technical Volume \(Maximum 40 pages\)](#)
 - [Project Narrative](#)
 - [Financing](#)
 - [Construction and Licensing Strategy](#)
- [Non-Technical Content](#)
 - [Management and Project Partners \(Maximum 5 pages\)](#)
 - [Community Benefits Plan \(Maximum 5 pages\)](#)
- [Additional Materials](#)

Cover Page:

The cover page must include all of the following:

- The project title.
- The proposed Tier selection (e.g., Tier 1).
- The project team, including awardee name, entity type and an explanation of eligibility as described in [Step 1](#), both the technical and business points of contact, and names of all team member organizations.
- The project location(s).
- The proposed Gen III+ SMR technology, or brief narrative on process being implemented to downselect to a technology.
- The proposed federal funding level, cost share, period of performance, and whether or not the applicant intends to apply for LPO financing in the future.
- Any statements regarding confidentiality as described in [Step 3](#).

Applicants are encouraged to use the cover page format shown at the end of the [Step 2](#) section.

Technical Volume

Project Narrative

Each application shall have a project narrative that describes the proposed project, the rationale for pursuing a Gen III+ SMR deployment, and how the project will enable follow-on deployments. Applicants should include the following:

- **Project concept:** A high-level overview of the proposed project, including the value proposition, the team's rationale for pursuing the project, and how the team intends to address the spent nuclear fuel produced during operations¹⁴.
- **Technology selection:** Documentation of the reactor technology being pursued, including the nature of the relationship between the applicant and the reactor technology vendor and an up-to-date status of the reactor design indicating whether the design is in the conceptual, preliminary, or final design phase. If a technology is not yet selected, the applicant should describe the process and milestone timeline for technology selection.
- **Project site:** A description of the project site and rationale for selecting it as the demonstration site, as well as a description of two-way community engagement around the potential for a new nuclear project and any indications of community sentiment.
- **Subscription and offtake agreements:** A description of how the plant's power (electricity and/or steam) will be used and by whom, and the length of subscription compared to the anticipated plant lifetime. If the anticipated subscription does not match the expected output either at initial operation or during anytime in the plant's lifetime, a plan should be included on how new subscriptions will be obtained or an explanation be provided as to why the lack of subscription will not significantly affect the economics of the plant over its lifetime. Additionally, the applicant should provide a mitigation plan if an off-taker leaves the project.

Preference will be given to offtake agreements that are legally binding, with higher subscription being viewed more favorably.

- **Orderbook support:** A description of how the FOAK deployment will help enable follow-on deployments either with the project team or through lessons learned and potential for cost reductions associated with the FOAK deployment. Applicants should include information on existing firm follow-on orders if possible, timing for subsequent projects, and/or any negotiations being pursued on orders that may be accelerated due to the FOAK deployment. For the purposes of this solicitation, fleet level deployment is considered achieving NOAK costs for deployment and is anticipated to occur around the fifth deployment.

The Department understands there is uncertainty in guaranteeing future deployments, but preference will be given based on the credibility and binding nature of future orders. While domestic U.S. deployments are of greater interest, international orders will be considered provided that a credible plan to achieve export licensing from the U.S. and operating licensing from the foreign regulator is provided.

Financing

The applicant should explain how DOE funding would be applied to derisk the deployment of a Gen III+ SMR. As this program is designed to set projects on the pathway to deployment, the financing plan should cover the entire reactor project regardless of which project milestones are targeted for this award.

¹⁴ Designs and operations for spent nuclear fuel management should be consistent with 10 CFR Part 71 and 72, the waste confidence rule, and DOE's amended standard contract.

- **Milestones:** The applicant should propose a list of the milestones for the reactor project on a timeline and indicate milestone payments in raw numbers and as a percent of estimated total project costs. When setting milestone timing, not all milestones need to have the same period of performance. However, the applicant must propose a maximum performance period for each milestone. Should a milestone be completed in advance of the time proposed, DOE will review deliverables and decide on proceeding to the next negotiated milestone.

A narrative should also be provided as to why the milestones were selected, which phase of deployment (design, licensing, construction) the milestone awards will assist, and how the selected milestones will not only accelerate a first Gen III+ SMR deployment but will also help lead to follow-on deployments. Any narrative should include how the applicant plans to track milestone progress.

When proposing milestones for award, the applicant should consider the requirements specified in the [Milestones and Costs](#) section of this solicitation. Milestone specifics will be negotiated during the application process for applicants who are selected to move forward in the application process and may include technical, financial, and / or community-related activities, as appropriate.

- **Project costs:** A plan should be provided for how the project costs will be borne by team members. This plan should provide a breakdown of funding from public and private sources throughout the project milestones. This plan should also include any planned partnerships and financing strategies/commitments.
- **Overall project financing:** The applicant should include a strategy for financing the reactor project, including the anticipated sources of funding and a breakdown of debt and equity levels at each project phase (design, licensing, construction). The applicant should include a corporate entity organization chart and proposed capitalization table showing the existing and proposed legal entities involved in the ownership, funding and development of the project and anticipated capital commitments. For applications that will require additional financing beyond this award, applicants will need to specify how they plan to complete the project using any combination of the following:
 - Additional non-federal support, such as private investment and/or state incentives
 - Loans, through conventional lenders and/or a federal program, such as LPO
 - Monetization of tax credits

Applicants should describe their investment process, anticipated timing, and prerequisites for a project to proceed through a gating process, if applicable. These should be reflected in the milestones and project schedule proposed above.

Should the applicant wish to pursue LPO financing, a description of the specific project scope covered under this program and how it will be distinct from the scope covered by an LPO loan should be provided. Applicants that intend to seek LPO financing should specify how they plan to complete the project both with and without LPO financing. A viable strategy to finance the project cannot be predicated on the assumed receipt of LPO financing. For more information on this topic, please see the [Integration with LPO](#) section.

- **Spend plan:** The applicant will need to provide an overall spend plan through start-up and operations of the reactor, even though proposed milestones may or may not cover the entire scope.

It is crucial that the spend plan be as accurate as possible from the start of award until the milestones covered under this program are completed. The integral spend, derived from the spend plan, will be used to ensure the aggregated milestone payments made under award never exceed 50 percent of total project costs accrued at the time of each milestone payment.

- **Cost-overflow risk strategy:** A key enabler to achieving fleet level deployment of Gen III+ SMRs will be avoiding significant cost overruns in the first deployment. Having an effective strategy to manage this risk is important and the application should provide a comprehensive strategy for managing this risk that covers key topics including, but not limited to:
 - How risks are identified, allocated, and mitigated among project partners during the project life cycle to achieve a successful deployment.
 - Cost escalation planning for EPC costs, labor/workforce availability, and permitting and regulatory submittals.
 - Any mechanisms or provisions that exist within the team structure or agreements to ensure successful deployment should there be changes in team composition, such as a team member leaving or a new team member joining, or if a significant change in an offtake agreement should occur.
 - The method and level of contingency funding that will be included within the project and milestone award requests. An explanation of why the proposed level of contingency is considered sufficient should also be provided.
 - How, and at what points in the project, cost and schedule estimates will be matured and what level of validation and verification will be performed for accuracy and quality.
 - The mechanism(s) proposed to navigate cost-overruns if they occur, including whether team members planning subsequent deployments are willing to offset risk on the first project.
 - Any other identified debt or equity partnerships or standby equity that could potentially be a source of additional capital to the project and levels of discussions or commitments to date.

Licensing and Construction Strategy

Applications must include initial versions of Engineering, Procurement, Construction, and Operations (EPC&O) project documents focusing on the project development and licensing process. Data, information, and related documents will cover:

- **Site:** Rationale for selecting the proposed site and strategy and proposed schedule for obtaining all necessary federal, state, and local permits, including meeting National Environmental Policy Act and National Historic Preservation Act requirements.
- **Licensing strategy:** Applicants should describe the intended licensing pathway and include a summary of all past licensing activities with the NRC such as pre-application engagements, previous design certifications, previously granted permits for the proposed site, and/or permits and licenses for the same reactor design. The rationale for choosing the preferred licensing pathway, 10 CFR 50 or 10 CFR 52, should be provided and include how this pathway will help lead to subsequent deployments of the same technology.

- **Supply chain:** The applicant should describe the level of supply chain analysis they have performed for their deployment; identify any shortcomings within the supply chain that could delay their deployment, including lack of capacity for key components if multiple concurrent projects exist during the proposed deployment life cycle; and describe how the supply chain can support future deployments beyond the first. Additionally, the applicant should indicate what fraction of the project will be sourced within the U.S. and any foreseeable needs to source components or services overseas.
- **Schedule:** A notional execution schedule should be included, showing sufficient maturity and resilience for a major construction project at an initial phase of development.
- **Orderbook:** The applicant should include a description of how subsequent deployments will be facilitated by this project, including:
 - The high-level plan for multiple reactor deployments, and a timeline for how procurements and construction would be staged for each subsequent project, including any available details about potential locations, owners, and/or offtakers for these future deployments;
 - Anticipated areas for cost reductions, and a plan to implement those reductions, from FOAK to NOAK. This may be via lessons learned by the EPC, shared worker/operator training facilities for future projects, or financing strategy successes; and,
 - Plans for factory modularization and/or manufacturability.

Non-Technical Content

Management Team and Project Partners (Maximum 5 pages)

- **First deployment project team:** Applicants should clearly identify all members of the team for the lead project, such as utilities, reactor technology vendors, end-users/off-takers, and EPC contractors, and describe their roles and responsibilities in the project. This should include identifying the lead design entity for both nuclear and non-nuclear design work and fabrication as well as how the work will be integrated and coordinated to avoid rework, cost growth, and schedule delays.

Though final team composition is not required at the time of application, applicants should provide a clear path on how and when the team will be finalized prior to award.
- **Key personnel:** Applicants should describe the key personnel for implementing the project, including roles and responsibilities, expertise, and percentage time commitment. Applicants should include community benefits staff along with development, engineering, and construction personnel.
- **Orderbook partners:** Applicants should identify existing orderbook partners and substantiate the nature of their commitments at time of application. Additionally, the applicant should provide a description of their intentions to share lessons learned from their deployment and the mechanism by which the lessons learned will be shared. Applicants should identify any barriers to information sharing, such as IP considerations.
- **(If applicable) Governance structure:** If the applicant plans to leverage an incorporated consortium model, applicants should provide the consortium's internal governance structure and a written set of internal rules, along with its membership.

For additional sections required, please see [“Application Materials Required for Both Tier 1 and 2” below.](#)

Tier 2: Application Contents and Format

Section	File Naming Convention	Page Limit	Format
Cover Page	ControlNumber_LeadOrganization_CoverPage	1	PDF
Technical Volume			
Project Narrative	ControlNumber_LeadOrganization_ProjectNarrative.pdf	25*	PDF
Financing	ControlNumber_LeadOrganization_Financing.pdf		PDF
Licensing and Construction Strategy	ControlNumber_LeadOrganization_LicensingConstruction.pdf		PDF
Non-Technical Content			
Management Team and Program Partners	ControlNumber_LeadOrganization_MgmtPartners.pdf	5	PDF
Community Benefits Plan	ControlNumber_LeadOrganization_CBP.pdf	5	PDF
Impacted Indian Tribe Documentation	ControlNumber_LeadOrganization_IMT_Doc.pdf	N/A	PDF
Letters of Commitment	ControlNumber_LeadOrganization_LOCs.pdf	N/A	PDF
Resumes	ControlNumber_LeadOrganization_Resumes.pdf	3 pages each	PDF
Transparency of Foreign Connections	ControlNumber_LeadOrganization_TransparencyFC.pdf	N/A	PDF
Foreign Entity Waiver Requests and Foreign Work Waiver Requests	ControlNumber_LeadOrganization_Waiver.pdf	N/A	PDF
Current and Pending Support	ControlNumber_LeadOrganization_CPS.pdf	N/A	PDF
Potentially Duplicative Funding Notice	ControlNumber_LeadOrganization_PDFN.pdf	N/A	PDF

*Tiers 2.1 and 2.2 will have a technical volume not to exceed 25 pages. Tier 2.3 will have a technical volume not to exceed 10 pages.

Document Format Requirements

Your submission must conform to the form and content requirements described in this section, including maximum page lengths. A Control Number will be issued when you begin the OCED eXCHANGE application process. The Control Number must be included with all Application documents. The Control Number must be prominently displayed on the upper right corner of the header of every page and included in the file name (i.e., Control Number_Applicant Name_Application).

- Each document must be submitted in **Adobe PDF** format unless otherwise stated.
- Include assigned **Control Number** in upper right corner of the header of every page along with the file name.
- Page numbers must be included in the footer of every page.
- You must not exceed the specified page limit. DOE will only review authorized number of pages.
- All documents must be written in **English** language.
- All pages must format to fit 8.5-11-inch paper with margins no less than one inch on all sides.
- Use **Calibri** typeface, **black** font color, font size of **12 point** or larger. Figures and tables may use 10-point font.
- References must be included as footnotes or endnotes in a **font size of 10** or larger. Footnotes and endnotes are counted toward the maximum page requirement.
- The maximum file size that can be uploaded to the OCED eXCHANGE website is **50 megabytes (MB)**. Files in excess of 50 MB cannot be uploaded, and hence cannot be submitted for review.
- If a file exceeds 50 MB but is still within the maximum page limit specified in the solicitation, it must be broken into parts and denoted to that effect.

Application

Contents

- [Cover Page](#)
- [Technical Volume \(Maximum 25 pages\)](#)
 - [Project Narrative](#)
 - [Financing](#)
 - [Construction and Licensing Strategy](#)
- [Non-Technical Content](#)
 - [Management and Project Partners \(Maximum 5 pages\)](#)
 - [Community Benefits Plan \(Maximum 5 pages\)](#)
- [Additional Materials](#)

Cover Page:

For all tier 2 applications, the cover page must include the following:

- The project title.
- The proposed Tier selection (e.g. Tier 2.1, Tier 2.2, or Tier 2.3).
- The project team, including awardee name, entity type, and an explanation of eligibility as described in [Step 1](#), both the technical and business points of contact, and names of all team member organizations, as appropriate.
- The project location(s), if applicable.
- The proposed Gen III+ SMR technology, if applicable.
- The proposed federal funding level, cost share, and period of performance.
- Any statements regarding confidentiality as described in [Step 3](#).

Applicants are encouraged to use the [example cover page](#) format shown at the end of the [Step 2](#) section.

Note: When filling out the Cover Page, applicants should use 'N/A' (not applicable) for any space not relevant to the application, instead of leaving the space blank.

Technical Volume

Project Narrative

For Tier 2.1, each application shall have a project narrative that describes the proposed project and how the project will enable follow-on deployments of Gen III+ SMRs. Applicants should include the following:

- **Project concept:** A description of the proposed project, including the objectives being sought, the value proposition, and the rationale for pursuing it.
- **Project approach:** A description of the planned approach for executing the proposed work, to include the total project cost and schedule. Applicants should include a description of the resources anticipated for the conduct of the project and which resources will be sourced domestically or abroad.
- **Project site:** A description of the proposed project site(s) or region of potential sites and rationale for selecting it/them, as well as the current status of two-way community engagement around the potential for a new nuclear project and any indications of community support. For each site, applicants should include information on whether they have ownership/control of the site and if not, the anticipated process and timeline to obtain ownership/control of the site(s).
- **Technology selection:** Discussion of the current status for reactor technology selection. In the event a reactor technology has not yet been selected, the applicant should include the process and timeline for the project team to make a determination. If applicable, documentation of the reactor technology being considered should be included, including the nature of the relationship between the applicant and the reactor technology vendor.
- **Organizational goals:** A description of the prime applicant's approved clean energy goals and how they are incorporated in the entity's strategy for future power acquisition.
- **Economic competitiveness:** Discussion on the anticipated price range for energy received from Gen III+ SMRs¹⁵ and how this compares to the price range of energy inputs currently being received by the organization. The applicant should also discuss any organizational metrics (e.g., lowest cost mandate) used when evaluating options for future generation and whether these evaluations include green-house gas emitting technologies.
- **Orderbook support:** A description of how the proposed project will help enable follow-on deployments of Gen III+ SMRs. Applicants should include information on existing relationships with firm FOAK deployments, if applicable.
- **Risk management plan:** 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, could impact the success of the project. As a minimum, include the initial identification of significant technical, management, community acceptance, and resource (e.g., workforce continuity) issues that have the potential to impede project progress and strategies to minimize impacts from those issues.

For Tier 2.2, each application shall have a project narrative that describes the proposed project and how the project will enable follow-on deployments. Applicants should include the following:

- **Project concept:** A description of the proposed project, including the objectives being sought, the value proposition, and the rationale for pursuing it.

¹⁵The anticipated price range used for the energy received from Gen III+ SMRs should not assume or be dependent on LPO financing in order to demonstrate economic competitiveness.

- **Project approach:** A description of the planned approach for executing the proposed work, to include the total project cost and schedule. Applicants should include a description of the resources anticipated for the conduct of the project and which resources will be sourced domestically or abroad.
- **Training program:** Provide a summary on whether any training programs will be implemented through the course of the proposed project to reduce the burden for entry for other domestic entities trying to enter the domestic supply chain for nuclear. Provide a description of the proposed training program and the implementation strategy, if applicable.
- **Project site:** A description of the proposed project site(s) and rationale for selecting it/them, as well as the current status of two-way community engagement around the potential for new development projects (if applicable) and any indications of community support. For each site, applicants should include information on whether they have ownership/control of the site and if not, the anticipated process and timeline to obtain ownership/control of the site(s).
- **Technology selection:** Documentation of the technology being pursued, including the nature of the relationship between the applicant and Gen III+ SMR vendors. The application should describe how the proposed supply chain improvement will support FOAK and follow-on Gen III+ SMR deployments.
- **Commercial competitiveness:** Provide a summary of the organization's business plan for developing, maintaining, and/or expanding the commercial viability, both domestically or abroad, of the capabilities and/or capacities improved by the proposed project.
- **Orderbook support:** A description of how the proposed project will help enable follow-on deployments of Gen III+ SMRs. Applicants should include information on existing relationships with firm FOAK deployments, if applicable.
- **Risk management plan:** 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, could impact the success of the project. As a minimum, include the initial identification of significant technical, management, community acceptance, and resource (e.g. workforce continuity) impacts that have the potential to impede project progress and strategies to minimize impacts from those issues.

For Tier 2.3, each application shall have a project narrative that describes the proposed project and how the project will enable follow-on deployments. Applicants should include the following:

- **Project concept:** A high-level overview of the proposed Gen III+ SMR deployment project to be covered by the future Integrated Project Schedule and Project Cost Estimate, including the value proposition and the rationale for pursuing it.
- **Project site:** A description of the proposed project site and rationale for selecting it, as well as a description of two-way community engagement around the potential for a new nuclear project and any indications of community support.

Financing

For Tiers 2.1 and 2.2, the applicant should explain how DOE funding would be applied to derisk the potential future deployment of Gen III+ SMRs.

- **Milestones:** The applicant should list the milestones for the project and indicate which milestones it proposes be cost shared under the scope of this award. A narrative should also be provided as to why the cost shared milestones were selected. Any narrative should include how the applicant plans to track milestone progress and what actions are expected to be taken if a milestone is anticipated to not be met on time or is not successfully completed on time.

When proposing milestones for the award, the applicant should consider the requirements specified in the [Milestones and Costs](#) section of this solicitation. Applicants should include milestones with defined work scope and related milestone payments and include a project spend plan which shows the total anticipated project cost at the time of each milestone completion. The Department will evaluate milestones over the course of the project to determine the feasibility of project completion.

- **Project cost:** A plan should be provided on how the non-federal share of project costs will be obtained from the team members or other public and private sources along with planned partnerships and financing strategies/commitments.

For Tier 2.3, the applicant should describe its path to improve the confidence of cost and schedule estimates for its proposed near-term deployment of a domestic Gen III+ SMR.

- **Milestones:** The applicant should list the proposed milestones to deliver Project Cost Estimates and Integrated Project Schedules to the Department for independent review. Milestone specifics will be negotiated during the application process for applicants who are selected to move forward.
- **Project cost:** A plan should be provided on how the non-federal share of project costs will be obtained from the team members or other public and private sources along with planned partnerships and financing strategies/commitments.

Licensing and/or Construction Strategy

For Tier 2.1, applications must include a discussion of the proposed licensing process. Data, information, and related documents will cover:

- **Site:** Description of the strategy and proposed schedule for obtaining all necessary federal, state, and local permits needed for the proposed project.
- **Licensing strategy:** Applicants should describe the anticipated licensing pathway for the future Gen III+ SMR deployment, if known, and how the current proposed project fits into that overall licensing strategy. The applicant should also include a summary of all past licensing activities with the NRC such as pre-application engagements and previously granted permits for the proposed site. The rationale for choosing the preferred licensing pathway, 10 CFR 50 or 10 CFR 52, should also be provided.
- **Orderbook:** The applicant should include a description of how lessons learned from Gen III+ deployments will be incorporated into this project.

For Tier 2.2, applications must include a discussion on the project development and proposed licensing process. Data, information, and related documents will cover:

- **Site:** Description of the strategy and proposed schedule for obtaining all necessary federal, state, and local permits needed, if applicable, for the proposed project.

- **Licensing strategy:** Applicants should describe the intended licensing pathway, if applicable, and include a summary of past licensing activities with the NRC, if applicable.
- **Supply chain:** The applicant should describe the level of supply chain analysis they have performed, identifying any shortcomings within the supply chain that could delay a domestic orderbook of Gen III+ SMRs, to include any lack of capacity for key components if multiple concurrent projects exist during the proposed deployment life cycle and how the supply chain can support future deployments beyond the first.

For Tier 2.3, applications must include a discussion of the project development and proposed licensing process. Data, information, and related documents will cover:

- **Site:** Description of the proposed schedule for obtaining all necessary federal, state, and local permits needed for the project.
- **Licensing strategy:** Applicants should describe the anticipated licensing pathway for the future Gen III+ SMR deployment. The applicant should also include a summary of all past licensing activities with the NRC such as pre-application engagements and previously granted permits for the proposed site. The rationale for choosing the preferred licensing pathway, 10 CFR 50 or 10 CFR 52, should also be provided.

Non-Technical Content

Management Team and Project Partners

For all Tier 2 applications, applications should include:

- **Primary project team:** Applicants should clearly identify all teaming partners and describe their roles and responsibilities in the proposed project.
- **Key personnel:** Applicants should describe the key personnel for implementing the proposed project, including roles and responsibilities, expertise, and percentage time commitment. Applicants should include community benefits staff along with development, engineering, and construction personnel.
- **Orderbook partners:** Applicants should identify existing orderbook partners and substantiate the nature of their commitments (either formal or informal) at time of application, if applicable. Additionally, the applicant should provide a description of their intentions to share lessons learned from their deployment and the mechanism by which the lessons learned will be shared. Applicants should identify any barriers to information sharing, such as IP considerations.
- **Past Performance:** The applicant should include a list of key prior projects, with a similar nature and magnitude of scope as the proposed project, for the prime applicant and sub-awardees/sub-contractors on the project. For each listed project, a short description of the project and information on whether the project was completed on time or within budget should be included.

For additional sections required, please see [“Application Materials Required for Both Tier 1 and 2” below.](#)

Application Materials Required for Both Tier 1 and 2

Community Benefits Plan

Applicants will submit initial Community Benefits Plans, which will be refined during OT negotiations between the selectee(s) and DOE. The CBP should include the following:

- **Community and labor engagement:** A description of communities or groups that could experience impacts, any prior engagement with those communities/groups to date, and whether any impacted communities are designated as disadvantaged.¹⁶ Include a description of objectives, approaches, and timelines for engaging community members, Tribes, workforce organizations, labor unions, and other impacted groups, including underrepresented groups.¹⁷ Include a statement describing any plans to negotiate Community and Workforce Agreements which may include plans to secure memorandums of understanding (MOUs) outlining how negotiations of these agreements will take place in later phases.
- **Quality jobs and workforce development:** A description of planned efforts to attract and retain a skilled, local workforce, that includes workers from underrepresented communities or groups including those from disadvantaged communities, for construction and operations. Include a description of the number and quality of existing and anticipated jobs for this project, efforts to support worker organizing and collective bargaining, worker inclusion in the creation of workplace health and safety plans, efforts to encourage worker retention, and describe training plans utilizing registered apprenticeships and labor-management skills development programs.¹⁸
- **Diversity, Equity, Inclusion, and Accessibility (DEIA):** A description of plans to advance DEIA, including any plans to provide comprehensive supportive services to improve job access for underrepresented workers and workers from disadvantaged communities and to partner with or support Tribes; minority-serving institutions; underrepresented businesses, suppliers, and contractors; and organizations serving underrepresented communities and those facing barriers to employment.

¹⁶ Pursuant to Executive Order (EO) 14008, “Tackling the Climate Crisis at Home and Abroad,” January 27, 2021, and the Office of Management and Budget’s Interim Justice40 Implementation Guidance M-21-28 and Addendum M-23-09, DOE recognizes disadvantaged communities as the census tracts identified as disadvantaged by the Climate and Economic Justice Screening Tool (CEJST), located at <https://screeningtool.geoplatform.gov/>, as well as all Federally Recognized Tribes (whether or not they have land). See https://www.whitehouse.gov/wp-content/uploads/2023/01/M-23-09_Signed_CEQ_CPO.pdf. DOE’s Justice40 Implementation Guidance is located at <https://www.energy.gov/sites/default/files/2022-07/Final%20DOE%20Justice40%20General%20Guidance%20072522.pdf>.

¹⁷ “Underrepresented” refers to populations sharing a particular characteristic, as well as geographic communities, that are shown to have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as exemplified by communities that have been denied fair, just, and impartial treatment, which may include women, persons with disabilities, persons who live in rural areas, persons otherwise adversely affected by persistent poverty or inequality, veterans, members of religious minorities, Black, Latino, Indigenous and Native American persons, Asian Americans and Pacific Islanders, other persons of color, and lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons.

¹⁸ An affirmative commitment could be an intention or willingness to permit union recognition through card check (as opposed to requiring union elections); intention or willingness to enter into binding arbitration to bargain first contracts with a union; a pledge to allow union organizers access to appropriate onsite non-workplaces (e.g. lunch rooms); and/or other supportive commitments or pledges.

- **Justice40 Initiative Impact Assessment:** An assessment of project benefits¹⁹ and negative impacts.²⁰ For each benefit and negative impact, include the expected magnitude of the impact; metrics to track the impact; time horizon for the impact; and the estimated percent of the impact that will flow to disadvantaged communities. Describe how project negative impacts will interact with existing cumulative burdens.
- **Justice40 Initiative Strategy:** A description of strategies and methods as integrated into each proposed OT milestone to maximize benefits and minimize negative impacts in line with community priorities; measure, track, and report impacts, including impacts to disadvantaged communities; ensure accountability, feedback, and transparency mechanisms, especially to impacted disadvantaged communities.

In support of the Community Benefits Plan, applicants may submit letters, MOUs, or other similar agreements from partnering Tribes, labor unions, and/or community entities specifically describing the nature of existing or planned partnerships. If the applicant intends to enter into Workforce or Community Agreement(s), please include letters or MOUs from proposed partners.

If awarded, DOE, with the support as needed of the awardee, will also identify federally recognized Indian tribes, including Alaska Native village or regional or village corporations (who are not project partners) whose resources or reserved rights may be impacted by the project. The awardee will provide information to support DOE's development of a Tribal engagement plan that acknowledges each Tribe's consultation policies, traditions, and expectations, and adheres to DOE Order 144.1 on Tribal consultation, so appropriate mitigation can be identified through government-to-government consultation to off-set potentially unintended adverse impacts. DOE is and remains responsible for government-to-government consultation with federally recognized Indian tribes, including Alaska Native village or regional or village corporations.

Applicants intending to seek financing from LPO for later stages of the project will be required to submit a Community Benefits Plan as part of any LPO application. LPO CBPs comprise the same four pillars of community and labor engagement, investing in the American workforce, DEIA, and the Justice40 Initiative. Applicants may wish to consider and describe any plans for how the CBP for this funding opportunity could be built upon for a LPO application.^{21 22}

For Tier 2.3, a Community Benefits Plan is not required.

Impacted Indian Tribe Documentation

For any project that potentially impacts Indian Tribes, including when the potentially impacted Indian Tribe is the applicant, applicants are required to submit additional documentation at the time of application, and

¹⁹ Applicants may describe environmental, social, economic, health, or other benefits, and are encouraged to describe benefits related to DOE's eight Justice40 policy priorities for Justice40 communities: 1) decrease energy burden, 2) decrease environmental exposure and burdens, 3) increase parity in clean energy technology access and adoption, 4) increase access to low-cost capital, 5) increase clean energy enterprise creation and contracting, 6) increase clean energy jobs, job pipeline, and job training, 7) increase energy resiliency, and 8) increase energy democracy.

²⁰ Negative impacts may include ecological (e.g., effects on natural resources and on components, structures, and functioning of ecosystems), aesthetic, historic, cultural, economic, social, or health impacts.

²¹ How to Get Started on Your Community Benefits Plan: <https://www.energy.gov/lpo/articles/how-get-started-your-community-benefits-plan>

²² LPO's Community Jobs and Justice team works with applicants throughout the process to understand how the project is approaching community benefits, share resources, and answer related questions. Learn more about LPO's approach to CBPs and find CBP resources here: <https://www.energy.gov/lpo/community-jobs-and-justice>

possibly during negotiation and prior to award. Potential impacts to Indian Tribes determined after application will also require additional documentation (see Community Benefits discussion on [consultation](#)).

Documentation from Potentially Impacted Indian Tribes

Applicants are required to submit documentation demonstrating that an authorized representative²³ of each potentially impacted Indian Tribe that is potentially impacted by the project is, at a minimum, aware of the nature of the application and its potential impacts to the relevant Indian Tribes. The notified authorized representative must be holding their position while the award is open for applications, and documentation must demonstrate affirmative awareness of the application (e.g., a delivery record from certified mail, a reply by the authorized representative). Documentation demonstrating support (see [Tribal Land or Tribal Subsurface Rights](#) below) submitted at the time of application will be considered to also demonstrate awareness of an Indian Tribe.

An applicant's failure to submit documentation of an Indian Tribe's awareness, or a letter of support, when required as described in this section, may constitute grounds for determining an application ineligible, non-responsive to the solicitation, not subject to further review and/or not otherwise subject to selection or award.

It will be noted that this outreach documentation does not replace government-to-government consultation between the Federal and Tribal governments, and DOE remains committed to its federal tribal trust responsibilities as outlined in DOE Order 144.1A.

Tribal Land or Tribal Subsurface Rights

For any project intended to be sited on Tribal land(s)²⁴ or known by the applicant to intersect with Tribal subsurface rights, applicants are required to submit documentation demonstrating support from the relevant Indian Tribes at the time of application.

Documentation may include either:

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

Applicants are encouraged to reference any applicable community benefits agreements in the Tribal support documentation, and to also reference any Tribal support documentation in the [Community Benefits Plan](#) as appropriate.

Other Potential Impacts

For projects not intended to be sited on Tribal land(s) or not known to intersect with Tribal subsurface rights, but that may have other potential impacts on Tribal resources or reserved rights, letters of support or resolutions of support are strongly encouraged and, depending on the nature of the impact, may be required if selected for

²³ An authorized representative must be an elected official or designated leader according to the traditions, constitution, or charter of the Indian Tribe, or someone with relevant delegated authority within the Tribal government. Examples include: Chief, Chairman, Chairwoman, Governor, Nation Representative, President, Chief Executive Officer, Chief Financial Officer, Speaker of the Council, Speaker of the Congress, Tribal administrator.

²⁴ Tribal land means "Indian land" and "Tribal land" as defined by 25 U.S.C. § 3501. <https://www.govinfo.gov/content/pkg/USCODE-2023-title25/pdf/USCODE-2023-title25-chap37-sec3501.pdf>.

negotiation of an agreement. Applicants are encouraged to reach out to Indian Tribes as early as possible in the application process to give Indian Tribes ample time to evaluate and respond. Potential impacts include impacts to cultural sites, sacred sites, water rights, fishing rights, and hunting rights.

The following resources may be useful to help determine if a project may impact an Indian Tribe(s) resources or reserved rights and the appropriate contacts:

- Map of Indian Lands: <https://bia-geospatial-internal.geoplatform.gov/indianlands/>
- Directory of federally recognized Tribes and Tribal leaders: <https://www.bia.gov/service/tribal-leaders-directory>

These resources are not exhaustive, and many Indian Tribes have resources or reserved rights which extend beyond their Tribal lands, or are covered within treaties, statutes, or case-law.

Identification of Potential Impacts

Applicants are required to document any efforts taken to identify any potential impacts to Indian Tribes, including any correspondence with Indian Tribes. These documents should be available on request to DOE.

If an applicant has reason to believe the proposed project has potential impacts to an Indian Tribe(s), the applicant must provide the project location and whether it is on Indian land or is known to intersect with subsurface rights, identify the potentially impacted Indian Tribe, and describe the potential impacts.²⁵ The applicant must also describe how the applicant has engaged with potentially impacted Indian Tribe(s) before applying and plans to engage with potentially impacted Indian Tribe(s) during the period of performance of the agreement, and, if necessary, after the end of the period of performance. If the applicant is an Indian Tribe, these elements should be addressed to ascertain potential impacts to Indian Tribes other than the applicant.

Notice Concerning Application Information

Any application that may potentially impact Indian Tribe(s) may be shared with the potentially impacted Indian Tribe(s). Applicants should include a Notice of Restriction on Disclosure and Use of Data identifying any business sensitive, trade secrets, proprietary, or otherwise confidential information. Such information shall be used or disclosed only for evaluation of the application or to determine whether the proposed project affects an Indian Tribe(s).

Letters of Commitment

Applicants should submit letters of commitment from all project team members. If applicable, the letter must state the specific minimum dollar amount or value of in-kind contributions committed by the project team member to the project costs. The following information for each project team member contributing to project costs should include: (1) the name of the organization; (2) the proposed dollar amount to be provided; and (3) the proposed nature—cash-or in-kind—of the contributions). Each letter must not exceed one page.

²⁵ Applicants do not need to reveal specific details about sacred sites such as specific location or specific ceremonies.

Resumes

A resume provides information reviewers can use to evaluate an individual's relevant skills and the experience of the key project personnel. Applicants must submit a resume (limited to three pages) for each project manager and Senior/Key Personnel that includes the following:

1. Contact information;
2. Education: All academic institutions attended, major/area, degree;
3. Training: (e.g.,) certification or credential from a Registered Apprenticeship or Labor Management Partnership;
4. Professional experience: Beginning with the current position, list professional/academic positions in chronological order with a brief description;
5. List all academic, professional, or institutional appointments, foreign or domestic, at the applicant institution or elsewhere, whether or not remuneration is received, and, whether full-time, part-time, or voluntary over the past 5 years; and
6. There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.

Transparency of Foreign Connections

Applicants must provide the following information as it relates to the proposed awardee and team member(s). Include a separate disclosure for the applicant and each proposed team member.

Disclosure exceptions by entity type:

- U.S. National Laboratories and domestic government entities are not required to respond to the Transparency of Foreign Connections disclosure.
- Institutions of higher education are only required to respond to items with an asterisk symbol (*).

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

Disclosure Information	
*Entity Name	Complete legal name of the lead organization.
*Website Address	Link to the entity's website address.
*Mailing Address	Complete mailing address for the entity to include zip code.
*Project Participants Party to ANY Malign Foreign Talent Recruitment Program	The identity of all owners, principal investigators, project managers, and covered individuals who are a party to any Malign Foreign Talent Recruitment Program . As part of this requirement, the entity must also certify that each covered individual has been made aware of the Malign Foreign Talent Recruitment Program prohibition and complied with the certification requirement via the Current and Pending Support disclosure;

Disclosure Information	
Country of Risk Joint Venture or Subsidiary	The existence of any joint venture or subsidiary that is based in, funded by, or has a foreign affiliation with any foreign country of risk (i.e., the People's Republic of China, Iran, North Korea, and Russia);
Current or Pending Foreign Contractual or Financial Obligation	Any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an enterprise owned by a foreign state or any foreign entity;
Percentage Foreign Ownership or Control	Percentage, if any, that the proposed awardee or team member has foreign ownership or control;
Percentage Country of Risk Ownership	Percentage, if any, that the proposed awardee or team member is wholly or partially owned, directly or indirectly, by an entity incorporated or otherwise formed in a foreign country of risk or foreign state-owned entity;
Percentage Country of Risk Investment	Percentage, if any, of venture capital or institutional investment by an entity that has a general partner or individual holding a leadership role in such entity who has a foreign affiliation with any foreign country of risk;
*Country of Risk Technology Licensing of Intellectual Property Sales	Any technology licensing, transfer, or intellectual property sales to a foreign country of risk, in effect during the 5-year period preceding submission of the proposal within the same technology area as the application (e.g., batteries, biotechnology, grid, energy generation and storage, advanced computing);
*Foreign Equipment	Any of the following foreign equipment proposed for use on the project: - Unmanned aircraft, control, and communications components originally made or manufactured in a foreign country of risk (including relabeled or rebranded equipment). - Coded equipment where the source code is written in a foreign country of risk. - Equipment from a foreign country of risk that will be connected to the internet or other remote communication system. - Any entity from a foreign country of risk that will have physical or remote access to any part of the equipment used on the project after delivery.
Foreign Entity Relationships	Any foreign business entity, offshore entity, or entity outside the U.S. related to the proposed awardee or team member;
List of Company Directors (and Board Observers)	Complete list of all directors (and board observers), including their full name, citizenship and shareholder affiliation, date of appointment, duration of term, as well as a description of observer rights as applicable;

Disclosure Information	
Complete Capitalization Table	Complete capitalization table for your entity, including all equity interests (including LLC and partnership interests, as well as derivative securities). Include both the number of shares issued to each equity holder, as well as the percentage of that series and all equity on a fully diluted basis. Identify the principal place of incorporation (or organization) for each equity holder. If the equity holder is a natural person, identify the citizenship(s). If the awardee or team member is a publicly traded company, provide the above information for shareholders with an interest greater than 5%;
Principal Place of Incorporation	Identify the principal place of incorporation (or organization) for each equity holder. If the equity holder is a natural person, identify the citizenship(s). If the awardee or team member is a publicly traded company, provide the above information for shareholders with an interest greater than 5%;
Rounds of Financing Table	A summary table identifying all rounds of financing, the purchase dates, the investors for each round, and all the associated governance and information rights obtained by investors during each round of financing; and
Organization Chart	An organization chart to illustrate the relationship between your entity and the immediate parent, ultimate parent, and any intermediate parent, as well as any subsidiary or affiliates. Identify where each entity is incorporated.

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

Waiver Requests (if applicable)

Foreign Entity Participation

For projects selected under this solicitation, unless waived as provided for in this section, all awardees and team members must qualify as domestic entities. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the Full Application. The “Requirements” Section of this solicitation lists the information that must be included in a waiver request.

Performance of Work in the United States (Foreign Work Waiver Request)

All work for projects selected under this solicitation must be performed in the U.S. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the Full Application. The “Requirements” Section of this solicitation lists the information that must be included in a foreign work waiver request.

Current and Pending Support

Current and pending support is intended to allow the identification of potential duplication, overcommitment, potential conflicts of interest or commitment, and all other sources of support. As part of the application, the Principal Investigator and all covered individuals at the applicant and team member

level must provide a list of all sponsored activities, awards, and appointments, whether paid or unpaid; provided as a gift with terms or conditions or provided as a gift without terms or conditions; full-time, part-time, or voluntary; faculty, visiting, adjunct, or honorary; cash or in-kind; foreign or domestic; governmental or private-sector; directly supporting the individual's research or indirectly supporting the individual by supporting students, research staff, space, equipment, or other research expenses. All connections with malign foreign talent recruitment programs must be identified in current and pending support.

For every activity, list the following items:

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

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

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

Covered individuals must provide a separate certification statement listing the required information above regarding current and pending support. Each individual must sign and date their respective certification statement:

I, [Full Name and Title], understand that I have been designated as a covered individual by the Federal funding agency.

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

I also certify that, at the time of submission, I am not a party in a [malign foreign talent recruitment program](#).

The information may be provided in the approved common disclosure format available at: https://www.nsf.gov/bfa/dias/policy/researchprotection/commonform_cps.pdf. Regardless of the format used, the individual must include a signature, date, and a certification statement using the language included in the paragraph above.

Definitions:

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

Malign Foreign Talent Recruitment Programs: More information can be found at <https://www.whitehouse.gov/wp-content/uploads/2024/02/OSTP-Foreign-Talent-Recruitment-Program-Guidelines.pdf#page=3>

Covered Individual: Covered Individual means an individual who (a) contributes in a substantive, meaningful way to the development or execution of the scope of work of a project proposed for funding by DOE, and (b) is designated as a covered individual by DOE.

DOE designates as covered individuals any principal investigator (PI); project director (PD); co-principal investigator (Co-PI); co-project director (Co-PD); project manager; and any individual regardless of title that is functionally performing as a PI, PD, Co-PI, Co-PD, or project manager. Status as a consultant, graduate (master's or PhD) student, or postdoctoral associate does not automatically disqualify a person from being designated as a "covered individual" if they meet the definition in (a) above.

The prime applicant is responsible for assessing the applicability of (a) against each person listed on the application. Further, the prime applicant is responsible for identifying any such individual to DOE for designation as a covered individual, if not already designated by DOE as described above.

The prime applicant's submission of a current and pending support disclosure and/or biosketch/resume for a particular person serves as an acknowledgement that DOE designates that person as a covered individual.

DOE may further designate covered individuals during award negotiations or the award period of performance.

Potentially Duplicative Funding Notice

If the applicant or project team member has other active awards of federal funds, the applicant must determine whether the activities of those awards potentially overlap with the activities set forth in its

application to this solicitation. If there is a potential overlap, the applicant must notify DOE in writing of the potential overlap and state how it will ensure any project funds (i.e., awardee cost share and federal funds) will not be used for identical cost items under multiple awards. Likewise, for projects that receive funding under this solicitation, if an awardee or project team member receives any other award of federal funds for activities that potentially overlap with the activities funded under the DOE award, the awardee must promptly notify DOE in writing of the potential overlap and state whether project funds from any of those other federal awards have been, are being, or are to be used (in whole or in part) for one or more of the identical cost items under the DOE award. If there are identical cost items, the awardee must promptly notify the DOE Grants Officer in writing of the potential duplication and eliminate any inappropriate duplication of funding.

Other Required Application Forms

Disclosure of Lobbying Activities (SF-LLL)

Awardees and team members may not use any federal funds to influence or attempt to influence, directly or indirectly, any officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, in connection with any federal contract, grant, loan, or cooperative agreement. In addition, if any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the applicant (including with non-federal funds) with respect to this funding opportunity, the applicant must complete and submit SF-LLL, “Disclosure of Lobbying Activities” ([SF-424 Individual Family | Grants.gov](#)).

Other Submission Requirements

Applicant Disclosure of Existing Work or Relationship with National Laboratories

The applicant shall disclose pre-existing work or relationship with national laboratories that is prior to this solicitation’s application and that is or may be relevant to the solicitation application. The Application and supplemental information submitted through electronic systems used by the DOE, including OCED eXCHANGE and FedConnect.net, constitutes the authorized representative’s approval and electronic signature.

- Requirements for third-party information such as references, letters of support, or letters of commitment to the project or to contribute to cost sharing.
- A reference to any requirements to provide documentation to support an eligibility determination, such as proof of 501(c)(3) status or an authorizing Tribal resolution.
- If applicable, the need to identify proprietary information. Include how to do so and how the federal agency will handle it.

Tier 1/Tier 2: Example Cover Page for Applications

Tier / Project Title:		OCED eXCHANGE Control Number:	
Applicant Name:			
Applicant Entity Type and Explanation of Eligibility:			
Project Location(s) by city, state, and zip code +4:		Location 1 Location 2...	
Proposed Gen III+ SMR Technology:			
Proposed System Capacity (nameplate capacity per-unit and plant):			
Team Member Organizations (e.g., Sub-Awardees, Key Technology Providers, and Project Partners):			
Senior/Key Personnel and Their Organizations:			
Do the proposed awardee and <u>all</u> team members qualify as domestic entities*? ☐ Yes ☐ No If not, specify which entities do not qualify as domestic entities will require a foreign entity disclosure here and include necessary foreign entity disclosures with the application:		* To qualify as a domestic entity, the entity must be organized, chartered, or incorporated (or otherwise formed) under the laws of a particular state or territory of the United States; have majority domestic ownership and control; and have a physical place of business in the United States.	
Points of Contact	Name	Email	Phone Number
Technical Project Manager			
Business Point of Contact			
Confidentiality Statement (if applicable):			
Total DOE Funding Request (\$M USD):			
Total Non-Federal Cost Share (\$M USD):			
Total Project Costs (\$M USD):			
Total Period of Performance (yrs):			

1. REVIEW

2. GET READY

3. SUBMIT

4. SELECTION

5. REQUIREMENTS

6. CONTACTS

STEP 3: SUBMIT YOUR APPLICATION

IN THIS STEP

Submission Requirements and Deadlines

Submission Requirements and Deadlines

Request application package

All application forms and instructions are available on OCED eXCHANGE. To access these materials, go to <https://OCED-exchange.energy.gov> and select the Notice of Funding Opportunity Number (enter Notice of Funding Opportunity Number).

Submission instructions

Actions Needed Prior to Applying

You must complete several one-time actions before applying to this funding opportunity. Some actions may take several weeks, and failure to complete them could interfere with your ability to apply to this funding opportunity, or to meet the negotiation deadlines and receive an award if the Application is selected. These requirements are as follows:

SAM.gov

Effective January 1, 2020, the System for Award Management (SAM) is the central repository for common government-wide certifications and representations required of federal solicitation awardees. As registration in SAM is required for eligibility for a federal award and registration must be updated annually, federal agencies use SAM information to comply with award requirements and avoid increased burden and costs of separate requests for such information, unless the awardee fails to meet a federal award requirement, or there is a need to make updates to their SAM registration for other purposes.

You must have an active account with SAM.gov. This includes having a Unique Entity Identifier (UEI). SAM.gov registration can take several weeks. Begin that process today. To register, go to [SAM.gov Entity Registration](#) and click Get Started. From the same page, you can also click on the Entity Registration Checklist for the information you will need to register.

Each applicant must:

- Be registered in SAM.gov before submitting an Application;

- Provide a valid Unique Entity Identifier in the Application; and

- Continue to maintain an active registration in SAM.gov with current information at all times during which you have an active federal award or an application or plan under consideration by a federal agency.

NOTE: Start the UEI and SAM registration process as soon as possible. If you have technical difficulties with the UEI validation or SAM registration process, use the Help feature on SAM.gov. Additional entity validation resources can be found here: [GSAFSD Tier 0 Knowledge Base - Validating your Entity](#).

DOE may not make a federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time DOE is ready to make a federal award, DOE will determine that the applicant is not qualified to receive a federal award and use that determination as a basis for making a federal award to another applicant.

OCED eXCHANGE

You must register with and submit application materials through OCED eXCHANGE at <https://oced-exchange.energy.gov>, OCED's online Application portal. See detailed instructions at [Financial Opportunities: Manuals \(energy.gov\)](#). OCED eXCHANGE is designed to enforce the deadlines specified in this funding opportunity. The "Apply" and "Submit" buttons will automatically disable at the defined submission deadlines. If an applicant experiences technical difficulties with a submission, the applicant should contact the OCED eXCHANGE helpdesk for assistance (OCED-exchangeSupport@hq.doe.gov).

Submission dates and times

Application

You must submit your Application by January 17, 2025, at 5:00pm ET.

Intergovernmental review

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with the merit review criteria described in this solicitation and guidelines established in the DOE Guide to Other Transactions, [GUIDE TO OTHER TRANSACTIONS \(energy.gov\)](#).

Evaluation and Administration by Non-Federal Personnel

In conducting the merit review evaluation, the government may seek the advice of qualified non-federal personnel as reviewers. The government may also use non-federal personnel to conduct routine, nondiscretionary administrative activities, including DOE contractors. The applicant, by submitting its application, consents to the use of non-federal reviewers/administrators. Non-federal reviewers must sign conflict of interest and non-disclosure acknowledgements (NDA) prior to reviewing an application. Non-federal personnel conducting administrative activities must sign an NDA.

Treatment of Application Information

Applicants should not include business sensitive (e.g., commercial or financial information that is privileged or confidential), trade secrets, proprietary, or otherwise confidential information in their application unless such information is necessary to convey an understanding of the proposed project or to comply with a requirement in the solicitation. Applicants are advised to not include any critically sensitive proprietary detail.

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

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

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

Notice of Restriction on Disclosure and Use of Data:

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

In addition, (1) the header and footer of every page that contains business sensitive, trade secret, proprietary, or otherwise confidential information must be marked as follows: "Contains Business Sensitive, Trade Secrets, Proprietary, or otherwise Confidential Information Exempt from Public Disclosure," and (2) every line or paragraph containing such information must be clearly marked with double brackets or highlighting. DOE will make its own determination about the confidential status of the information and treat it according to its determination. In furtherance of OCED's mission, and to support the further private investment in and deployment of clean energy technologies, as well as to support clean energy markets, OCED may publish aggregated and anonymized data derived from unmarked application information in Tier 1 applications (information that is not marked as business sensitive, trade secret, proprietary, or otherwise confidential information with the Notice of Restriction). The goal is to appropriately share aggregated and anonymized applicant data for the benefit the nation's broader clean energy ecosystem while ensuring robust protection of the underlying information or data.

Title to Subject Inventions

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

1. Contracts, leases, etc., with public agencies and private organizations and person – Additional Authorities (42 U.S.C. § 7256(g))
2. Domestic Small Businesses, Educational Institutions, and Nonprofits: Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), domestic small businesses, educational institutions, and nonprofits may elect to retain title to their subject inventions;
3. White House Memorandum to the Heads of Executive Departments and Agencies, February 18, 1983. Executive Order 12591 – Facilitating access to science and technology, April 10, 1987

Determination of Exceptional Circumstances: On June 07, 2021, DOE approved a Determination of Exceptional Circumstances (DEC) under the Bayh-Dole Act to further promote domestic manufacture of DOE science and energy technologies. In accordance with this DEC, all awards, including subawards, shall include the U.S. Competitiveness Provision in accordance with Section VI.B.xxii. U.S. Manufacturing Commitments of this solicitation. A copy of the DEC can be found at <https://www.energy.gov/gc/determination-exceptional-circumstances-decs>. Pursuant to 37 CFR 401.4, any nonprofit organization or small business firm as defined by 35 U.S.C. § 201 affected by any DEC has the right to appeal it by providing written notice to DOE within 30 working days from the time it receives a copy of the determination.

DOE may issue and publish further DEC's on the website above prior to the issuance of any awards. DOE may require additional submissions or requirements as authorized by any applicable DEC.

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

Subject Invention Utilization

A subject invention is an invention that was first conceived or first actually reduced to practice in performance of an OCED award. To ensure that awardees, team members, and contractors holding title to subject inventions are taking the appropriate steps to commercialize subject inventions DOE may require that each awardee holding title to a subject invention submit annual reports for 10 years from the date the subject invention was disclosed to DOE on the utilization of the subject invention and efforts made by awardee or its licensees or assignees to stimulate such utilization. The reports must include information regarding the status of development, date of first commercial sale or use, gross royalties received by the awardee, and such other data and information as DOE may specify.

Rights in Technical Data Under Award

Data rights differ based on whether data is first produced in the performance of an award or instead was developed at private expense outside the award.

“Limited Rights Data”: Limited Rights Data is data (other than computer software) developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged.

The U.S. government will not normally require delivery of confidential or trade secret-type technical data developed solely at private expense prior to issuance of an award, except as necessary to monitor technical progress and evaluate the potential of proposed technologies to reach specific technical and cost metrics.

Government Rights in Technical Data Produced Under Awards: The U.S. government normally retains unlimited rights in technical data produced under government financial assistance awards, including the right to distribute to the public. Unlimited rights mean the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose whatsoever, and to have or permit others to do so.

However, pursuant to special statutory authority, Protected Data first produced in the performance of corresponding DOE awards may be protected from public disclosure for up to ten years after the data is first produced. Protected Data is technical data or commercial or financial data first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552(b)(4) and which data is marked as being protected data by a party to the award. For awards permitting Protected Data, the Protected Data must be marked as set forth in the award’s intellectual property terms and conditions and a listing of unlimited rights data (i.e., non-protected data) must be inserted into the data clause in the award. In addition, invention disclosures may be protected from public disclosure for a reasonable time in order to allow for filing a patent application.

Note that the Government shall have the right to publish aggregated and anonymized data derived from Protected Data delivered under the award, but only if such derived data is aggregated and anonymized in accordance with OCED’s standard aggregation and anonymization protocols before being published.

Further, selectees and awardees may be provided the option to request an extended period of protection (up to thirty years) for certain categories of data if such period of protection is reasonably required to reach commercialization.

Copyright Requirements

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

Intellectual Property Management Plan

Selectees or awardees may be required to prepare and submit an executed Intellectual Property Management Plan (IPMP) between the members of the team. While the award will set forth the treatment of and obligations related to intellectual property rights between DOE and the individual members, the IPMP should describe how the members will handle intellectual property rights and issues between themselves while ensuring compliance with federal intellectual property laws, regulations, and policies. Guidance regarding the contents of IPMP is available on OCED's [Award Negotiations](#) website under Document Submission Overview. The following is a non-exclusive list of exemplary items the IPMP may cover:

- The treatment of confidential information between members (e.g., the use of NDAs);
- The treatment of background intellectual property (e.g., any requirements for identifying it or making it available);
- The treatment of inventions made under the award (e.g., any requirements for disclosing to the other members on an application, filing patent applications, paying for patent prosecution, and cross-licensing or other licensing arrangements between the members);
- The treatment of data produced, including software, under the award (e.g., any publication process or other dissemination strategies, copyrighting strategy, or arrangement between members);
- Any technology transfer and commercialization requirements or arrangements between the members;
- The treatment of any intellectual property issues that may arise due to a change in membership of the team; and
- The handling of disputes related to intellectual property between the members.

Application of U.S. Manufacturing Commitments

A primary objective of DOE's multi-billion-dollar research, development, and demonstration investments is to cultivate new research and development ecosystems, manufacturing capabilities, and supply chains for and by U.S. industry and labor. Therefore, in exchange for receiving taxpayer dollars to support an applicant's project, the applicant/awardee and any team members and contractor must agree to a U.S. Competitiveness provision requiring that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the U.S. unless the applicant/awardee can show to the satisfaction of DOE that it is not commercially feasible.

Award terms, including the specific U.S. Competitiveness Provision applicable to the various types of awardees and projects, are available at [Standard Intellectual Property \(IP\) Provisions for Financial Assistance Awards | Department of Energy](#). The Program and Award-Specific and the Intellectual Property Terms and Conditions will be unique to each award. Information related to such terms can be found on the [OCED Award Negotiations](#) page.

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

Information and guidance on a waiver and modification request process to the U.S. Competitiveness Provision can be found in the DOE Financial Assistance Letter on this topic, available at [PF 2022-09 FAL 2022-01 Implementation of the DOE Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE Science and Energy Technologies – Class Deviation](#). Additional information on DOE's Commitment to Domestic Manufacturing for DOE-funded R&D is available at <https://www.energy.gov/gc/us-manufacturing>.

The U.S. Competitiveness Provision is implemented by DOE pursuant to a DEC under the Bayh-Dole Act and DOE Patent Waivers. See Section Title to Subject Inventions for more information on the DEC and DOE Patent Waivers.

Retention of Submissions

DOE expects to retain copies of all applications and other submissions. No submissions will be returned. By applying to DOE for funding, applicants consent to DOE's retention of their submissions.

Personally Identifiable Information

All information provided by the applicant must to the greatest extent possible exclude Personally Identifiable Information (PII), which is information which can be used to distinguish or trace an individual's identity, such as their name, social security number, biometric records, alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, or mother's maiden name. See OMB Memorandum M-07-16 dated May 22, 2007, found at: https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/memoranda/2007/m07-16.pdf.

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

STEP 4: LEARN ABOUT REVIEW AND SELECTION

IN THIS STEP

[Application Review Information](#)

[Application Responses](#)

Application Review Information

Responsiveness review

The following applications will be deemed nonresponsive and will not be reviewed or considered:

- Applications not based on established scientific principles
- Applications submitted by entities not eligible for an award (see ‘Eligibility’ in Step 1 of this solicitation)
- Applications not working towards the near-term deployment of Gen III+ SMRs or supporting the development of the initial Gen III+ SMR orderbooks
- Applications where the proposed project(s) largely support technologies other than Gen III+ SMRs, as it is defined in this solicitation
- Applications proposing approaches identified specifically as NOT of interest

Review criteria

Compliance criteria

All applications must:

- Comply with the applicable content listed in [Step 2](#) of the solicitation
- Include all required documents
- Upload successfully in OCED eXCHANGE including clicking the “Submit” button
- Comply with the submission deadline stated in the solicitation

DOE will not review or consider submissions submitted through means other than OCED eXCHANGE, submissions submitted after the applicable deadline, or incomplete submissions.

Tier 1 Review Criteria

Criterion 1 – Project Achievability and Potential Impact (20%)

This criterion considers the following factors:

- **Project achievability:** Degree to which the applicant builds the case for the value proposition of the project and the team’s rationale for pursuing it, including an assessment of the strengths of the preferred site and, the viability of the subscription and offtake agreements.
- **Technology selection:** Degree to which the technology selection and timeline for its maturation meets the goals outlined for the project, and the degree to which the goals of the ultimate owner / operator are integrated into the project narrative.

- **Orderbook:** Degree to which the proposed project will facilitate an orderbook with the potential to support fleet-level deployment and achieve nth-of-a-kind costs.

Criterion 2 – Financial Viability (20%)

- **Cost share:** Degree to which the applicant has substantiated their ability to meet project cost share
- **Financial sustainability:** Degree to which the applicant has established its ability to financially sustain the project through construction and operation, and the extent to which the applicant has demonstrated clarity around navigating milestones and risks associated with project investment.
- **Financial reasonableness:** Degree to which the applicant has substantiated their ability to achieve the proposed milestones, including the sufficiency of the cost estimated for the proposed activities.
- **Quality of offtake agreement:** Degree to which the offtake agreement is high-quality and commercially viable.
- **Quality and maturity of cost estimates:** Degree to which the applicant has provided high-quality, comprehensive, and reasonable cost estimates.
- **Clarity of financing approach:** Degree to which the applicant has identified the mechanisms by which the project will be financed and the achievability of that financing, including whether the project plans to leverage additional non-federal support, loans, and / or tax credit revenue.
- **Cost-overrun risk planning:** Degree to which the applicant has a credible plan to navigate cost-overruns on the project.

Criterion 3 – Licensing and Construction Workplan (20%)

- **Achievability of construction strategy:** Degree to which the applicant provides strong EPC&O documents that lay out an achievable strategy for achieving the milestones laid out in the proposal and the overall project schedule, including achieving all relevant federal, state, and local permits.
- **Licensing approach:** Degree to which the applicant outlines a comprehensive and coherent licensing approach, including the substance of past licensing activities which may lead to project success.
- **Supply chain:** Degree to which the applicant has analyzed the supply chain and identified shortcomings, as well as the degree to which the applicant has maximized procurements in the U.S.
- **Orderbook sequencing:** Degree to which the applicant and its partners describes a cogent strategy for orderbook sequencing and information sharing that could lead to subsequent deployments that achieve cost-downs.

Criterion 4 – Management Team and Program Partners (20%)

- **Team capability:** Capability of the prime awardee, the proposed team, and key personnel to manage and address all aspects of a new nuclear project with a high probability of success and cost effectiveness.
- **Team composition:** Extent to which the applicant has identified a credible and capable project team, and the nature of their commitment to the project.

- **Orderbook and partnerships:** Degree to which orderbook partners are committed to follow-on deployments and the extent to which the team has identified a credible plan to share learnings and risks to achieve cost-downs on subsequent deployments.

Criterion 5 – Community Benefits Plan (20%)

This criterion considers the following factors:

- **Local engagement:** Degree to which project team has demonstrated two-way engagement with local communities, Tribes, and workers; understands positioning of these groups on nuclear energy; and shows a clear plan to further meaningfully engage and collaborate with local communities, labor unions, community-based organizations, and Tribes in a manner that influences project decisions.²⁶
- **Alignment of community benefits:** Degree to which project benefits align with community priorities and flow directly to members of the project communities, and particularly disadvantaged communities if applicable.
- **Quality local jobs:** Degree to which construction and operation roles will be high-quality jobs with the opportunity for collective bargaining that draw from local residents, particularly underrepresented groups and disadvantaged communities.
- **Support for underrepresented groups:** Degree to which the project team will facilitate participation in planning, construction, operations, and other workforce opportunities from underrepresented groups and disadvantaged communities, especially workers facing systematic barriers to employment.

Other selection factors

In addition to the above criteria, the Selection Official may consider the following **program policy factors** in determining which applications to select for award negotiations:

- Degree to which the proposed project team contributes a greater ratio of estimated overall project costs.
- Degree to which the proposed project is complemented by applicants in Tier 2 to support orderbook development.
- Degree to which the project plans to integrate opportunities with the National Nuclear Security Administration for international safeguards and security by design support.
- If contemplating an international orderbook, the degree to which the proposed project have implemented security and safeguards by design, have commenced radiological consequence analysis (from safety risk analysis), and meet the international legal and foreign nation regulatory requirements for International Atomic Energy Agency safeguards and security.
- Degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications).

²⁶ See *The Spectrum of Community Engagement to Ownership* by Facilitating Power for a framework.
<https://www.communitycommons.org/entities/3aec405c-6908-4bae-9230-f33bef9f40e1>

Tier 2 Review Criteria

Reviews of Tier 2.1, Tier 2.2, and Tier 2.3 applications will be conducted using separate review criteria, shown below. Applications must be fully responsive to each of the criteria relevant to the applicant's chosen Tier. Applications will be evaluated using an adjectival rating against the criterion identified for the designated Tier.

Review Criteria (Tier 2.1 and Tier 2.2)

Criterion 1 - Strategic value of the project to supporting the near-term domestic deployment of Gen III+ SMRs (20%)

This criterion involves consideration of the following factors:

- Importance of the proposed work in enabling the near-term domestic deployment of Gen III+ SMRs.
- Extent or degree to which project funds are allocated to U.S. companies, corporations, or subsidiaries.

Criterion 2 - Feasibility, quality, and timeliness of the applicant's plan to execute the proposed project (20%)

This criterion involves consideration of the following factors:

- Feasibility of the plan to execute the proposed work, including adequacy of cost and schedule and the identification of high-risk challenges and mitigation strategies, to meet the goals and objectives of the proposal.
- The quality and completeness of the description of the proposed work.
- Timeliness of the plan to support the near-term domestic deployment of Gen III+ SMRs.

Criterion 3 – Commercial Readiness (20%)

This criterion involves consideration of the following factors:

- (Tier 2.1) Extent or degree to which the approved clean energy goals of the prime applicant support the deployment of Gen III+ SMR technologies.
- (Tier 2.1) Extent or degree to which the anticipated price point for energy to be received from a near-term Gen III+ SMR aligns with the average price point for energy currently being acquired by the organization.
- (Tier 2.2) Adequacy of the business plan for developing, maintaining, and/or expanding the domestic commercial viability of capabilities and/or capacities improved by the proposed project.
- (Tier 2.2) Adequacy of the business plan for developing, maintaining, and/or expanding the international commercial viability of capabilities and/or capacities improved by the proposed project.
- (Tier 2.2) Extent or degree to which the proposed project reduces the burden for entry for other domestic entities trying to enter the domestic supply chain for new nuclear.

Criterion 4 - Technical and Management Capabilities (20%)

This criterion involves consideration of the following factors:

- Credentials, capabilities, and experience of key personnel, including the strength of the team to successfully accomplish the project.
- Demonstrated past performance of the Applicant and its proposed team members (not required for FFRDC/National Laboratory) in managing projects that meet project objectives, within budget and on schedule. (Note that in evaluating this criterion, DOE reserves the right to use information submitted with the application as well as past performance information obtained from any other source(s).)

Criterion 5 – Community Benefits (20%)

This criterion involves consideration of the following factors:

- Extent to which the proposed project maximizes benefits and minimizes negative impacts for nearby community(ies) and workers, including disadvantaged communities if applicable.
- Extent to which the proposed project is supported by, or is likely to be supported by, nearby community(ies) and workers.

Other selection factors – Tier 2.1 and Tier 2.2

In addition to the above criteria, the Selection Official may consider the following **program policy factors** in determining which applications to select for award negotiations under Tier 2.1 and Tier 2.2:

- Degree to which the proposed project supports orderbook development for team selected under Tier 1.
- The applicability of the proposed project across multiple reactor technologies.
- Degree to which the proposed cost share for the project exceeds the minimum required.
- Level of regulatory, permitting, and/or local policy support for the proposed project.
- Degree to which the proposed project incorporates applicant or team members from Minority Serving Institutions (e.g., Historically Black Colleges and Universities (HBCUs)/Other Minority Serving Institutions), and partnerships with underrepresented businesses.
- Degree to which the proposed project spurs economic development and job creation in distressed communities within the U.S.
- Degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications).

Review Criteria (Tier 2.3)

Criterion 1 – Improving Confidence in New Nuclear Deployments (100%)

This criterion involves consideration of the extent or degree to which the proposed work is likely to improve the confidence of cost and schedule estimates for Gen III+ SMR projects.

Other selection factors – Tier 2.3

In addition to the above criterion, the Selection Official may consider the following **program policy factors** in determining which applications to select for award negotiations under Tier 2.3:

- Degree to which the proposed project bolsters orderbook development for team selected under Tier 1.
- Selections to balance and to optimize an appropriate mix of technologies to meet program goals.
- Availability of appropriated funds to support the proposed effort.

Due Diligence Review for Research, Technology, and Economic Security

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

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

The due diligence review of covered individuals includes but is not limited to the review of resumes and disclosures, as required in the solicitation. DOE reserves the right to ask for disclosures on project participants not defined as covered individuals. The Applicant need not submit any additional information on non-covered individuals, unless requested by DOE. The volume and type of information collected may depend on various factors associated with the award.

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

Review and Selection Process

Overview

The review and selection process consists of multiple phases; an initial eligibility review followed by two-stages of evaluations. Stage 1 will include a traditional merit review structure during which a federal merit review panel, with the input of independent experts, will recommend finalists who will proceed to stage 2, which will consist of oral evaluations. Finalist letters will include expectations around oral presentations and negotiations.

While all Tier 1 applicants will follow this two-stage process, some Tier 2 applicants may be selected based on their stage 1 application only.

Ultimately, the Selection Official considers the recommendations of the independent reviewers and the federal merit review panel's recommendations along with other considerations such as the program policy factors, risk reviews, and availability of funds, in determining which applications to select.

Awardee Integrity and Performance Matters

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

Application Responses

DOE will notify applicants that are selected for oral evaluations and award negotiations, and selected applicants will be notified of their award negotiation dates.

DOE may stagger its selection determinations. As a result, some applicants may receive their notifications in advance of other Applicants. DOE will notify applicants of its determination via a notification letter by email to the technical and administrative points of contact designated by the applicant in OCED eXCHANGE.

Successful Applicants

Receipt of a notification letter selecting an application for award negotiations does not authorize the applicant to commence performance of the project. If an application is selected for award negotiations, it is not a commitment by DOE to issue an award. Applicants do not receive an award until award negotiations are complete, and the Grants and Agreements Officer executes the funding agreement, accessible by the awardee in FedConnect.

The award negotiation process, where DOE and the applicant will negotiate milestones, may take several months. Applicants must designate a primary and a backup point-of-contact in OCED eXCHANGE with whom DOE will communicate to conduct award negotiations. The applicant must be responsive during award negotiations by providing requested documentation, including Post-Selection Information Requests (see Step 5) and meet the negotiation deadlines. If the applicant fails to do so or if award negotiations are otherwise unsuccessful, DOE will terminate the award negotiations and rescind the Selection. DOE reserves the right to terminate award negotiations at any time for any reason.

Alternate Selection Determinations

In some instances, an applicant may receive a notification that its application was not selected for award and DOE designated the Application to be an alternate. As an alternate, DOE may consider the Application for federal funding in the future. A notification letter stating the Application is designated as an alternate does not authorize the applicant to commence performance of the project. DOE may ultimately determine to select or not select the Application for award negotiations.

Unsuccessful Applicants

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

Award Conditions and Reporting

Recipients of an award made under this solicitation must comply with requirements of all applicable federal, state, and local laws, regulations, DOE policy and instructions in this solicitation, and the award terms and conditions. Awardees must require all team members to comply with all applicable requirements.

STEP 5: LEARN ABOUT POST-SELECTION AND POST-AWARD REQUIREMENTS

IN THIS STEP

[Post-Selection Information Requests and Submissions](#)

[Post-Award Requirements and Administration](#)

[Terms and Conditions](#)

[Reporting](#)

Post-Selection Information Requests and Submissions

To reduce burden in the application process, DOE has instituted post-selection information requests and submissions procedures. These procedures allow certain information to be submitted later in the application and selection process.

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

NOTE: These requirements are not requested during the initial application process.

Post-Award Requirements and Administration

If applicants are selected for funding DOE will require all award recipients to follow and accept requirements governed by laws and policies – both federal government-wide and DOE or program specific. These post-award requirements include all national policy requirements; financial assistance general Certifications and Representations; Build America, Buy America requirements (if applicable); Davis-Bacon Act requirements; Foreign National Participation; Performance of Work in the United States (Foreign Work Waiver); Bipartisan Infrastructure Law-Specific Requirements; Fraud, Waste and Abuse requirements; Safety, Security, and Regulatory requirements; and Environmental Review in Accordance with National Environmental Policy Act requirements.

Reporting

DOE must measure the performance to show achievement of program goals and objectives, share lessons learned, improve program outcomes, and foster the adoption of promising practices. DOE will establish program goals and objectives during negotiations and incorporate them into the award terms and milestones.

Additional reporting requirements apply to BIL-funded projects. DOE may require specific data collection to track progress toward key departmental goals: ensuring justice and equity, investing in quality jobs, boosting domestic manufacturing, reducing greenhouse gas emissions, and advancing a pathway to private sector deployment. Examples of data that may be collected upon completion of a milestone include:

- New manufacturing production or recycling capacity
- Jobs data, including:
 - Number and types of jobs provided, wages and benefits paid
 - Workforce demographics, including local hires
- Efforts to minimize risks of labor disputes and disruptions
- Dollar value of contributions to worker training; number of new employee certificates and training credentials; ratio of apprentice- to journey-level workers employed

- Number of individuals trained, number of trainees placed in new full-time employment, number of trainings partnering with community-based organizations or labor unions
- Justice and Equity data, including:
 - Underrepresented businesses acting as vendors and subcontractors for bids on supplies, services, and equipment
 - Value, number, and type of partnerships with MSIs
 - Stakeholder engagement events, community engagement process
 - Other relevant indicators from the Community Benefits Plan

Administrative Requirements

Foreign Travel

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

Prohibition Related to Foreign Government-Sponsored Talent Recruitment Programs

a. Prohibition

As required by law,²⁷ *Covered Individuals* participating in a *Malign Foreign Talent Recruitment Program* are prohibited from participating in projects selected for federal funding under this solicitation. Should an award result from this solicitation, the awardee must exercise ongoing due diligence to reasonably ensure that no such individuals participating on the DOE-funded project are participating in a *Malign Foreign Talent Recruitment Program*. Consequences for violations of this prohibition will be determined according to applicable law, regulations, and policy. Further, the awardee must notify DOE within five (5) business days upon learning that an individual on the project team is or is believed to be participating in a foreign government talent recruitment program of a foreign country of risk. DOE may modify and add requirements related to this prohibition to the extent required by law.

Covered Individuals and the applicant must provide certifications regarding no participation in *Malign Foreign Talent Recruitment Programs* (see the Current and Pending Support section and Transparency of Foreign Connections section).

Non-Discrimination

²⁷ See sections 10631-10632 of [P.L. 117-167 \(42 USC 19231-19232\)](#); [OSTP-Foreign-Talent-Recruitment-Program-Guidelines.pdf \(whitehouse.gov\)](#).

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

b. **Definitions**

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

(A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual—

(i) engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a U.S. entity or developed with a federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;

(ii) being required to recruit trainees or researchers to enroll in such program, position, or activity;

(iii) establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a federal research and development award;

(iv) being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;

(v) through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a federal research and development award;

(vi) being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the awardee;

(vii) being required to omit acknowledgment of the awardee institution with which the individual is affiliated, or the Federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the Federal research and development award;

(viii) being required to not disclose to the federal research agency or employing institution the participation of such individual in such program, position, or activity; or

(ix) having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the federal research and development award; and

(B) a program that is sponsored by—

(i) a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;

(ii) an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232); or

(iii) a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).

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

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

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

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

(4) other international activities determined appropriate by the Federal research agency head or designee.

Updated Current and Pending Support

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

Export Control

The U.S. government regulates the transfer of information, commodities, technology, and software considered to be strategically important to the U.S. to protect national security, foreign policy, and economic interests without imposing undue regulatory burdens on legitimate international trade. There is a network of federal agencies and regulations that govern exports that are collectively referred to as “Export

Controls.” All awardees and team members are responsible for ensuring compliance with all applicable U.S. Export Control laws and regulations relating to any work performed under a resulting award.

The awardee must immediately report to DOE any export control investigations, indictments, charges, convictions, and violations, at the awardee or team member level, and provide the corrective action(s) to prevent future violations/convictions.

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

Requirement

All work performed under DOE awards issued under this solicitation must be performed in the U.S. The prime awardee must flow down this requirement to its team members.

Failure to Comply

If the prime awardee fails to comply with the Performance of Work in the U.S. requirement, DOE may deny or reduce milestone payment for the unauthorized work conducted outside the U.S. The prime awardee is responsible should any work under this award be performed outside the U.S., absent a waiver, regardless of whether the work is performed by the prime awardee, team members, contractors or other project partners.

Waiver

To seek a foreign work waiver, the applicant must submit a written waiver request to OCED. See below for the information that must be included in a request for a foreign work waiver.

Waiver Requests For: 1. Foreign Entity Participation; and 2. Foreign Work

1. Waiver for Foreign Entity Participation

Many of the technology areas DOE funds fall in the category of critical and emerging technologies (CETs). CETs are a subset of advanced technologies that are potentially significant to U.S. national and economic security.²⁸ For projects selected under this solicitation, all awardees and team members must be organized, chartered, or incorporated (or otherwise formed) under the laws of a state or territory of the U.S.; have majority domestic ownership and control; and have a physical location for business operations in the U.S. To request a waiver of this requirement, an applicant must submit a waiver request in the Full Application.

Waiver Criteria

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

- a. Its participation is in the best interest of the U.S. industry and U.S. economic development;
- b. The project team has appropriate measures in place to control sensitive information and protect against unauthorized transfer of scientific and technical information;

²⁸ See [Critical and Emerging Technologies List Update \(whitehouse.gov\)](#).

- c. Adequate protocols exist between the U.S. subsidiary and its foreign parent organization to comply with export control laws and any obligations to protect proprietary information from the foreign parent organization;
- d. The work is conducted within the U.S.; and
- e. The foreign entity will satisfy other conditions that may be deemed necessary by DOE to protect U.S. government interests.

Content for Waiver Request

A Foreign Entity waiver request must include the following:

- a. Information about the entity: name, point of contact, physical address, and proposed type of involvement in the project;
- b. Country of incorporation, the extent of the ownership/level control by foreign entities, whether the entity is state owned or controlled, a summary of the ownership breakdown of the foreign entity, and the percentage of ownership/control by foreign entities, foreign shareholders, foreign state, or foreign individuals;
- c. The rationale for proposing a foreign entity participate (must address criteria above);
- d. A description of the project's anticipated contributions to the U.S. economy;
 - How the project will benefit the U.S., including manufacturing, contributions to employment in the U.S. and growth in new markets and jobs in the U.S.;
 - How the project will promote manufacturing of products and/or services in the U.S.;
- e. A description of how the foreign entity's participation is essential to the project;
- f. A description of the likelihood of Intellectual Property (IP) being created from the work and the treatment of any such IP; and
- g. Countries where the work will be performed. (Note: if any work is proposed to be conducted outside the U.S., the applicant must also complete a separate request foreign work waiver.)

DOE may also require:

- A risk assessment with respect to IP and data protection protocols that includes the export control risk based on the data protection protocols, the technology being developed, and the foreign entity and country. These submissions could be prepared by the project lead (if not the prime awardee), but the prime awardee must make a representation to DOE as to whether it believes the data protection protocols are adequate and make a representation of the risk assessment – high, medium, or low risk of data leakage to a foreign entity.
- Additional language be added to any agreement or sub-agreement to protect IP, mitigate risk, or other related purposes.

DOE may require additional information before considering the waiver request.

DOE's decision concerning a waiver request is not appealable.

2. **Waiver for Performance of Work outside the United States (Foreign Work Waiver Request)**

All work funded under this solicitation must be performed in the U.S. To seek a waiver of the Performance of Work in the U.S. requirement, the applicant must submit an explicit waiver request in the Full Application. A separate waiver request must be submitted for each entity proposing performance of work outside of the U.S.

Overall, a waiver request must demonstrate to the satisfaction of DOE that it would further the purposes of this solicitation and is otherwise in the economic interests of the U.S. to perform work outside of the U.S. A request for a foreign work waiver must include the following:

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

DOE may require additional information before considering the waiver request.

DOE’s decision concerning a waiver request is not appealable.

STEP 6: CONTACTS AND SUPPORT

IN THIS STEP

[Agency Contacts](#)

[Helpful Websites](#)

Agency Contacts

Program and solicitation questions

Office of Clean Energy Demonstrations and Office of Nuclear Energy Gen III+ SMR Team

U.S. Department of Energy

Email: Gen3PlusSMR@hq.doe.gov

OCED eXCHANGE

If you need help with the eXCHANGE system, please contact OCED-ExchangeSupport@hq.doe.gov.

SAM.gov

If you need help, you can call 866-606-8220 or live chat with the [Federal Service Desk](#).

Helpful Websites

- [Office of Clean Energy Demonstrations | Department of Energy](#)
- [OCED Application Process](#)
- [Applicant Eligibility Guidance](#)

