

Gen III+ SMR Q&A

Updated 9/17/2024

Italics denote new questions as of latest update.

General

What technologies are eligible for this solicitation?

This solicitation is limited to Gen III+ Small Modular Reactors which, for this solicitation, are defined as nuclear fission reactors that: (1) use 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) include significant improvements compared to reactors operating on December 27, 2020. The formal definition will be included in the solicitation.

The Notice of Intent (NOI) definition for a small modular reactor (SMR) states that the power level should be between 50 – 700 MW. Is this megawatt (MW) electric, MW thermal, and does this refer to Gross or Net?

The SMR definition for this solicitation will be clarified to identify the expected net power range for any single-unit to be between 50 MWe – 350 MWe. No restriction will be placed on the total anticipated power output for the plant due to the potential use of multiple units. The net power level for any single-unit should exclude hotel loads.

Will applicants be able to propose spend plans for their projects that front-load government cost share payments above the 50% limit, with the intent to have the total project cost share to the government at 50% or less?

At no point during the performance of the award will DOE pay more than 50% of costs incurred. DOE and the selectee(s) will negotiate all milestone payments.

Are applicants able to apply and be selected for Tier 1 and Tier 2 as part of different teams and applications?

Yes, provided that the scopes of the projects are distinct and that there are no interdependencies between the applications necessary to successfully complete the scope of the award. For example, a Tier 1 application must not be dependent upon a successful Tier 2 Early Site Permit or only be manufacturable if a specific supply chain partner receives a Tier 2 award. As another example, a Tier 1 application cannot include an early site permit milestone for a specific site when the same site is applying for an early site permit under Tier 2.

Is there a programmatic conflict if an applicant is applying for both the Gen III+ and Office of Nuclear Energy (NE) LEU supply chain funding?

There should be no conflict so long as there is no overlap in scope between the proposed work for the two independent programs.

Does the Department plan a second round of Gen III+ opportunities in 2025?

As of now, DOE has no plan to issue a second round for this Gen III+ opportunity. However, if none of the projects submitted are selected, or if additional funds are made available, DOE may consider a second round or a new solicitation in 2025.

Can the Department provide the evaluation criteria for the two tiers?

The Department is currently developing the merit review criteria for the pending solicitation, which will have additional details. As indicated in the NOI, the review criteria will focus on the likelihood of success for the applicant in executing the project and the value of the project to improving the nation's energy security through the establishment of an orderbook of additional SMR projects.

Would DOE consider a 'multiple prime' scenario where multiple entities have individual scopes of work and engage directly with DOE but are otherwise connected?

No. The Applicant must function as one entity with one prime responsible for the performance of the entire scope of the agreement. All federal cost share funding will flow through the prime, and they will be responsible for making payment to any project subrecipients or subcontractors.

Would an applicant be able to win both a Tier 1 and Tier 2 award?

Yes, all eligible applications may be selected for award even if the same applicant applied under both Tier 1 and Tier 2.

Will successful applicants to the Gen III+ solicitation be able to receive DOE cost shared funds for pre-award costs expended on scope that is within the proposed project?

No. 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.

Tier 1

For the Tier 1 \$800M SMR funding, I understood it to be 50/50 cost share between the proposal team and DOE. Is the \$800M meant to be a 50/50 cost share?

DOE has up to \$800M available in federal funds for its portion of the cost share. The requirement is that DOE cannot contribute more than 50% of the overall project cost; therefore, the total award value will be no less than \$1.6B, if the full government share is awarded.

This means that DOE will pay out based on previously agreed milestone amounts upon their completion. The agreed upon milestone payment from DOE cannot account for more than 50 percent of the project costs incurred in completing the milestone.

Would DOE consider awarding to a coordinating entity to manage the funds among separate scopes of work?

Yes, so long as there is a single entity which meets the eligibility definition in the funding opportunity. Under such an approach, the single coordinating entity would be responsible for managing the performance of the sub-recipients and coordinating with the Department to ensure that the objectives of the project are met. The Awardee lead will be responsible for the successful completion of the agreed upon milestones. The structure of the award team itself is up to the applicant, but must include a commercial utility as defined by the solicitation.

Will applicants be required to identify a commercial operational milestone as part of the Tier 1 award?

Tier 1 applicants will not be required to identify an operational milestone. However, since the intent of the program is to have a deployed capability, if the project proposal expects to apply Department funding through commercial operation, the applicant shall define milestones spanning the full scope of the project through commercial operation.

For Tier 1 awards, how will the funds be split if one or two awards are made?

Based on the quality and responsiveness of the applications, the Department may select one, two, or no awards. The number of awards made is at the discretion of the Department at the conclusion of the merit review process and the funding splits will be assessed based on project requirements and subject to negotiations.

Tier 2

How committed should a Tier 2 applicant be to a specific Gen III+ technology at the time of initial application?

While commitment of a Tier 2 project to a specific Gen III+ technology would add some certainty to the applicant's proposal, there will be no specific requirement for an applicant to commit to a specific Gen III+ technology. However, if it is not specific to a technology, the application should show that it provides generic benefit to a spectrum of Gen III+ technologies (such as an early site permit that is done under a plant parameter envelope) or how the proposal can successfully pivot to support the designs that are moving forward at a faster pace.

For Tier 2, what are the award limits under each of the categories?

The Department has not established monetary limits for the amount of funding that will be applied under each of the sub-tiers. The Department will need to evaluate the number and types of applications that are submitted and select the best projects and funding amounts that make the largest impact. As usual, these project funding amounts will be subject to negotiations.

For Tier 2, what is the max award that will potentially be awarded?

This remains to be determined and will depend on the number and quality of applications that are submitted to each sub-tier. DOE expects to make at least one award in each Tier 2 sub-tier.

National Environmental Policy Act

What are the DOE-specific NEPA requirements for Early Site Permits (ESPs) if an applicant is looking to obtain ESPs on multiple sites?

It depends. DOE is required to complete NEPA (and related requirements including Section 106 of the National Historic Preservation Act) for all federally funded projects before any work can begin. A NEPA determination is very project specific, site specific, and time specific. DOE intends to coordinate with the NRC and the successful applicant to avoid duplication of efforts or delays.

What is the approach to early project development activities that do not yet involve site work?

DOE is required to complete NEPA for all activities proposed for funding. Pre-site development activities including planning, engineering, design, paper studies, etc. may be categorically excluded from further NEPA review. Early coordination with DOE is recommended to avoid duplication of efforts or delays.

How is NEPA used when federal funds are used for pre-construction?

DOE is required to complete NEPA for all activities proposed for funding. A NEPA strategy is tailored based on the specifics of a project and DOE NEPA will be engaged for the pre-construction scope of work prior to the NRC docketing for a construction permit or a combined license application. Therefore, DOE and the NRC work together to prevent duplication of activities and to incorporate areas already reviewed into each agency's NEPA process.