

QUESTIONS AND ANSWERS

PLEASE REFER TO THE GENERAL FAQS SECTION OF ARPA-E'S WEBSITE ([HTTP://ARPA-E.ENERGY.GOV/?Q=FAQ/GENERAL-QUESTIONS](http://arpa-e.energy.gov/?q=faq/general-questions)) FOR ANSWERS TO MANY GENERAL QUESTIONS ABOUT ARPA-E AND ARPA-E'S FUNDING OPPORTUNITY ANNOUNCEMENTS. ADDITIONAL QUESTIONS SPECIFIC TO THIS FOA ONLY ARE INCLUDED BELOW. PLEASE REVIEW ALL EXISTING GENERAL FAQS AND FOA-SPECIFIC QUESTIONS BEFORE SUBMITTING NEW QUESTIONS TO ARPA-E.

I. Full Application Phase Questions:

Q1. Should the estimated project cost on the cover page be for Phase I only or the whole project (Phase I, II and IIS)?

ANSWER: As set forth at FOA Section II.A, applicants must apply for a Combined Phase I/II/IIS Award. The estimated project cost must reflect the total for the entirety of the proposed project.

Q2. We have three ideas to propose and would like to choose the two which are most responsive to the ARPA program requirements. It would be a great assistant if you provide us with your comments on them:

- Down-hole flatjack fo in-situ stresses measurements in geothermal wells
- Down-hole rock property measurement tool for real-time characterization of mechanical properties of geothermal reservoirs
- High temperature down-hole dynamic sensor for real-time geothermal drilling optimization

ANSWER: ARPA-E will review compliant and responsive Full Application submissions. Full Application submissions are compliant if they meet the requirements of "Compliant Criteria" of the FOA, and are responsive if they meet the Program Overview and Objectives of the FOA and ARPA-E will only review applications that are scientifically aligned with the Targeted Topic(s) open at the time the application is submitted. Applicants must review the technical requirements of the FOA and independently determine whether their proposed concept warrants a submission.

Q3: Does ARPA provide a mentoring program similar to SBIR/STTR phase 0 to help the first time applicant?

ANSWER: No. ARPA-E sponsors an SBIR/STTR program separate from the Department of Energy's SBIR/STTR program. Prospective applicants are not eligible for assistance through the Department's SBIR/STTR Phase 0 Assistance Program. Refer to <http://www.dawnbreaker.com/doephase0/> for additional information on the Department of Energy's assistance program.

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Q4. I had a question about the new solicitations DE-FOA-0001953 and DE-FOA-0001954. I noticed that the topics and subtopic areas are identical for both FOAs and that the only difference is that one is focused towards SBIR/STTR and the other is focused towards FFRDCs and large companies. I had composed a team with my small business, a university, and an FFRDC for the ARPA-E OPEN 2018 call for a proposal in one of the nuclear topic areas. I was wondering if it was acceptable to split our ARPA-E OPEN team into two; with the university and FFRDC on one proposal for DE-FOA-0001953 and my small business on the SBIR solicitation DE-FOA-0001954, with both our proposals focusing on the same technology and topic area. Since the solicitations are identical, it seems that this would be acceptable. If this is not the case, all team members would be on one proposal directed at one solicitation or the other?

ANSWER: ARPA-E does not accept collaborative applications for federal financial assistance. Applications submitted to ARPA-E for its consideration must be scientifically distinct (refer to DE-FOA-0001953, Section III.C.3, and DE-FOA-0001954, Section III.F.3).

Q5. What is the difference between DE-FOA-0001953 and DE-FOA-0001954?

ANSWER: Prospective applicants are encouraged to read the funding opportunity announcements and independently assess if a submission is warranted under DE-FOA-0001953 or DE-FOA-0001954. DE-FOA-0001954 is targeted at small business concerns under the Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) programs, and reflects the unique rules and regulations applicable to those programs. Entities that qualify as “Small Business Concerns” are strongly encouraged to apply under DE-FOA-0001954. To determine eligibility as a “Small Business Concern” under DE-FOA-0001954, review the eligibility requirements in Sections III.A-III.D of the FOA.

Q6. Under SBIR program, I was wondering if US-based universities can be a sub-recipient? The FOA document only mentions Research Institution including nonprofit educational institutions. Are universities nonprofit educational institutions?

ANSWER: As set forth in FOA Section III.B.2, Footnote 9: “Research Institutions include FFRDCs, nonprofit educational institutions, and other nonprofit research organizations owned and operated exclusively for scientific purposes. Eligible Research Institutions must maintain a place of business in the United States, operate primarily in the United States, or make a significant contribution to the U.S. economy through the payment of taxes or use of American products, materials, or labor.”

Q7. If the proposed budget is for phase I/II/IIS, shall we describe the proposal tasks for 4 years covering all three phases?

ANSWER: Instructions for preparing the Application’s technical volume and work task descriptions can be found in the Technical Volume Template at Paragraph 2.

Q8. Are the stated maximum award amounts in the FOA for phase I/II (\$1,930,000) or Phase I/II/IIS (\$3,610,000) refer to only the federal share or the total project cost including cost-shares?

ANSWER: The maximum award amounts set forth at FOA Section II.A exclude cost share.

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Q9. Would it be possible to extend the application deadline of FOA 1954 for ~1-2 weeks from Feb 19?

ANSWER: ARPA-E has extended the deadline date for receipt of Full Applications under the first three Targeted Topics to February 26, 2019. The deadline time for their receipt remains unchanged.

Q10. The cover page of the FOA 0001954 says the deadline is 5pm ETZ but later in the table/text that you modified in the amendment, the deadline is written 9:30 AM! I assume 5pm ET is correct, right? in either case, we would appreciate if you could extend the deadline at least a few days.

ANSWER: The FOA close date is December 19, 2019 5 PM ET. The DE-FOA-00001954 utilizes a process of Targeted topics for Full Application Submissions. The Targeted Topics Table in the Funding Opportunity Announcement lists topic-specific application due dates. The deadline date and time for the first three Targeted Topics has been changed to February 26, 2019 at 9:30 AM ET.

Q11. Budget template provided covers 4 years (Phase I -1 year; Phase II (Year 1 and Year 2); and Phase IIS - 1 year) but solicitation states performance period is 24 months (Table 1).

ANSWER: Notwithstanding the information set forth in FOA Table 1, the corresponding budget template, and elsewhere within these FAQs, ARPA-E is prepared to fund Phase I/II/IIS projects selected for award negotiations for a maximum 48 month performance period at an amount not to exceed \$3.61 million. All funded amounts and performance periods are subject to the parties' mutual agreement.

Q12. For the FOA application (SBIR/STTR) for the 'Funds & Costs' tab, can that be for Phase 1 Funds only or does it need to be for all phases?

ANSWER: Refer to FAQ 1.

Q13. Under topic 1, submissions specifically not if interest, the last bullets reads: "primary application areas other than nuclear or infrastructure (e.g. commercial or residential buildings)". Does the statement in the parenthesis mean application areas to commercial and residential buildings are of interest under this topic or not? Would appreciate your clarification.

ANSWER: Application to commercial and residential buildings are not of interest. The referenced text reads, in pertinent part: "Submissions that propose the following may be deemed nonresponsive and may not [be subjected to] merit review or be considered ... [p]rimary application areas other than nuclear or infrastructure (e.g. commercial and residential buildings)."

Q14. I have a question regarding sub-recipient eligibility for DE-FOA-0001954 "High Value Methane Pyrolysis". On page 12 it states FFRDCs / Government-Owned, Government Operated laboratories (GOGOs) are eligible to participate as a Subrecipient to a Small Business Concern. Can I get clarification if GOGOs are able to participate as subrecipients?

ANSWER: FOA Section III.B.2 (pp.12-13) is correct as written.

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Q15. SF424A Excel worksheet has cost breakdown by Phase I, Phase II (1st & 2nd year) and Phase IIs (12 months). FOA-0001954 is combined Phase I/Phase II/Phase IIs. So, how can we prepare SF424A – Phase II Year 1 and Year 2?

ANSWER: Refer to FAQ No. 11.

Q16. In Table 1 (Technical Performance Targets, p.78), should the Carbon Product Price be greater than \$5/kg. The table shows less than \$5/kg.

ANSWER: In the context of H₂ production at scale, the volumes of co-produced carbon through methane pyrolysis would be very large (22 million tons of carbon / 1 quad of energy). Potential applications for the resulting carbon products have to be on a correspondingly large scale (i.e. construction sector or large-scale manufacturing industries), and produce carbon at competitive prices (less than 5\$/kg) to penetrate such markets. These applications will also require the carbon materials to have useful macroscopic properties with regard to thermal, electrical, and/or mechanical performance. Applicants are expected to specify the size of the intended market and expected properties (i.e. electrical, mechanical) for the carbon co-product.

Q17.a We would like to apply for DE-FOA-0001954 Solicitation on Topics Informing New Program Areas SBIR/STTR for Phase I granting funding. We're currently working on [description omitted]. Please advise if this topic qualify for a full proposal submission on this category.

Q17.b I was evaluating this program "Supporting Entrepreneurial Energy Discoveries (SEED)" under "DE-FOA-0001954: SOLICITATION ON TOPICS INFORMING NEW PROGRAM AREAS SBIR/STTR" for [description omitted]. So, [I] was wondering if this would be a fit for the program?

ANSWER (17.a & 17.b): Refer to the the ARPA-E General Questions 2.7 and 6.19 on the ARPA-E webpage <http://ARPA-E.energy.gov> FAQ page.

Q18. We are wondering if a Non-U.S. Citizen Green Card Holder can be a Principal Investigator on the opportunity DE-FOA-0001954 - Supporting Entrepreneurial Energy Discoveries (SEED).

ANSWER: Applicants are responsible for personnel staffing decisions concerning their proposal, including for foreign researchers working on ARPA-E awards. Principal Investigators and other researchers are not necessarily required to be U.S. citizens or permanent residents. Hiring/work assignment decisions for ARPA-E research should consider that ARPA-E awards normally involve technology or software - including any manufacturing know - how - that is "restricted or proprietary" as cited in export control regulations (at 15 C.F.R Section 734.8(a)). This includes when a university awardee partners with/licenses to a for - profit entity, or if the university awardee seeks ARPA-E approval of "protected data" resulting from the research. Also, awardees' inventions resulting from ARPA-E research must be reported and protected, and are subject to U.S. manufacturing requirements.

Refer to Attachment 1, Clauses 4 and 12, and Attachment 2 of the ARPA-E Model Cooperative Agreement for awardee immigration and export control obligations.

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Q19. One of my clients who has not yet registered his small business indicated that he has a felony on his personal record He is interested in submitting a DOE SBIR Ph[ase] I proposal in response to Funding Opportunity No.DE-FOA-0001954. Would this record preclude him from submitting a DOE SBIR Ph[ase] I proposal?

ANSWER: There is no such limitation preventing submission of an application. Per 2 C.F.R. § 200.205, as part of the application process, ARPA-E does collect information concerning the responsibility of applicants and assesses the risks posed prior to making a Federal award.

Q20. Table 1. Targeted Topics Row: 'G', Column: 'Submission Deadline for Replies to Reviewer Comments' This cell is filled with 'None', rather than 'N/A' or a particular date. What does the 'None' mean in this case, as compared to 'N/A'? For example, does it mean that this targeted topic is not reviewed for comments? Therefore, an applicant simply submits their application and waits until the deadline.

ANSWER: Refer to FOA § IV.A.4. For the Targeted Topic “Supporting Entrepreneurial Energy Discoveries” (SEED), ARPA-E will not be providing reviewer comments to applicants for their reply.

Q21. I am the sole owner and employee of my LLC. It appears I could either apply as a Small Business Concern or a Standalone Applicant. In my particular case, are there any unique reasons to register and apply as a Small Business Concern over a Standalone Applicant?

ANSWER: Refer to FOA § III.A. All applicants under DE-FOA-001954 must be eligible Small Business Concerns as defined under U.S. Small Business Administration rules. These rules may be found at http://sbir.gov/sites/default/files/elig_size_compliance_guide.pdf. Additional information on eligibility as a Small Business Concern may be found at <https://www.sba.gov/content/am-i-small-business-concern>.

Small Business Concerns may apply as a Standalone Applicant, or as the lead organization for a project team. Project teams must comply with limitations on the quantity of work performed by various team members as stated in the FOA. These vary depending upon which program an applicant submits its application to (i.e., SBIR or STTR).

Q22.a Can you provide some guidance on the constraints, if any, on the minimum allowed period of performance? For example, can a \$500K proposal be squeezed into a 9 month or 12 month period of performance? Can a \$250K proposal be squeezed into a 6 month period of performance? etc.

ANSWER: As set forth in Appendix G, the maximum award term is twenty-four months. Applicants may propose to accomplish the work in less time; however, reasonableness of the proposed project schedule is matter considered during merit review.

Q22.b Is it allowed for a single firm to win two awards, one each for two completely separate and unrelated projects?

ANSWER: Yes, refer to FOA § III.F.3.

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Q23. We would appreciate a response to the following question related to your: Solicitation on Topics Informing New Program Areas (DE-FOA-0001954) “Supporting Entrepreneurial Energy Discoveries (SEED)” Program. Would you consider a novel wind energy responsive or a fundable technology ...

ANSWER: Refer to Q2 above.

Q24.a Within the budget justification requirements on page 7 and in the budget justification workbook on the contractual tab, it states that DOE/NNSA FFRDCs need to complete a Field Work Proposal if they are included in the proposal. Unfortunately, I could not find any information describing the Field Work Proposal within the FOA and the link provided within the instructions lead to an inactive webpage. Could you please provide me instructions and an example of a Field Work Proposal so that I can review and prepare one if appropriate for ... involvement in this proposal call?

ANSWER: Refer to DOE O 412.1A Chg1 (AdminChg), *Work Authorization System*, for details on preparing a Field Work Proposal.

Q24.b I was told by my management that usually when a Field Work Proposal is required for a proposal it means that funding would be provided directly to ... if awarded. Could you please confirm whether funding for this proposal call, if awarded, would come directly to ... from ARPA-E or need to come in through a SPP-NFE/CRADA with the company?

ANSWER: When a FFRDC/DOE Lab is a member of a Project Team, ARPA-E executes a funding agreement directly with the FFRDC/DOE Lab and a single, separate Cooperative Agreement or Grant with the rest of the Project Team. Notwithstanding the use of multiple agreements, the Prime Recipient under the Cooperative Agreement is the lead organization for the entire project, including all work performed by the FFRDC/DOE Lab and the rest of the Project Team.

Funding agreements with DOE/NNSA FFRDCs take the form of Work Authorizations issued to DOE/NNSA FFRDCs through the DOE/NNSA Field Work Proposal system for work performed under Department of Energy Management & Operation Contracts.

Q24.c On page 23 of the FOA under Business Assurances and Disclosure Forms it states that “If the Applicant is a FFRDC/DOE Lab, requires the Applicant to provide written authorization from the cognizant Federal agency...” What I need clarification on is whether the authorization needs to be included as part of the proposal materials or if I can be provided at the time of award?

ANSWER: Authorization must be provided at the time application materials are submitted to ARPA-E.