

QUESTIONS AND ANSWERS

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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. Questions for week ending: JULY 24, 2015

Q1. I am writing you vis-à-vis DE-FOA-0001380 (GENSETS SBIR/STTR). I was encouraged to submit a full application under DE-FOA-0001198 (GENSETS), but I was not selected for funding. This current application appears to be the same topic. There also appears to be no Concept Paper submission in order to submit a Full Application. Is this current FOA some sort of extension in time and funding of the DE-FOA-0001198? Am I eligible to re-work and re-submit my proposal for DE-FOA-0001198?

ANSWER: Publication of Department of Energy FOA Number DE-FOA-0001380 does not represent an extension of time and funding under DE-FOA-0001198. While addressing the same subject matter, DE-FOA-0001380 is targeted at small business concerns under the Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) programs. Concept paper submission is not required for this FOA. For additional eligibility information refer to DE-FOA-0001380, Section III (Eligibility Information), and the General Questions page of the ARPA-E website under the Applicant Eligibility topic.

Q2. I have the following questions regarding this SBIR/STTR effort.

Q2.a. If an STTR proposal includes Phase I, Phase II and Phase IIs, can the percentages of work for the small business be under 40% for some phases, as long as the sum of all work is at least 40% for the small business?

ANSWER: The small business concern must perform a minimum of 40% of the proposed work for each phase of any award per the SBA's Small Business Technology Transfer Directive (24-Feb-2014), Section 6(a)(2) (available at <https://www.sbir.gov/about/about-sttr>).

Q2.b If only a Phase I is awarded, do you require hardware or a prototype to be fabricated as part of Phase I?

ANSWER: Please refer Section II.A (Award Overview) of the GENSETS SBIR/STTR FOA, which states that applicants must apply for a combined Phase I/II/IIS award. However, if ARPA-E selects a proposed project or a part of it for Phase I award only, then a prototype generator system fabrication (and demonstration) shall not be required, however a component-level fabrication (and demonstration) may be required.

Q2.c For an STTR, with the small business at 40% of the work and universities and labs doing the remainder, does this qualify the small business for no cost share from all in the first 12 months while universities and labs have 20% cost share, or do all organizations have to pay 20% cost share?

ANSWER: ARPA-E may not provide pre-submission assessments on a project team's specific cost sharing requirement. Cost share requirements are identified at DE-FOA-001380, Section III.E (Cost Sharing). In general, no cost share is required for Phase I of an SBIR/STTR award. Project teams that do not satisfy the minimum small business concern participation requirement set forth in Section III.E.2 (Phase II and Phase IIS Cost Share Requirement) of the FOA are subject to a minimum 20% cost share contribution for Phase II and Phase IIS efforts.

Q3. Upon reading the Funding Opportunity it appears a number of technologies are called out for consideration but it is noticeable by its absence that fuel cells are not called. Is it correct to assume that fuel cells are excluded, or at least not desired, for this application?

ANSWER: Please refer Section I.G (Applications Specifically Not of Interest) of the GENSETS SBIR/STTR FOA. According to Section I.G of the FOA, Applications that propose CHP systems that employ fuel cells will be deemed nonresponsive and will not be reviewed or considered. ARPA-E has previously solicited for innovative fuel cell technology for distributed generation applications through its REBELS FOA.

Q4. Two questions regarding this FOA:

Q4.a Does the project [have] to build a complete engine/generator system or [is] the component level demonstration (such as Novel concepts that incorporate exhaust and coolant waste-heat recovery, reduced mechanical friction and reduced heat transfer) acceptable?

ANSWER: ARPA-E will consider Full Applications that propose a generator system to meet or exceed the technical performance targets set forth in Section I.F (Technical Performance Targets) of the GENSETS SBIR/STTR FOA and that do not fall under Section I.G (Applications Specifically Not of Interest) of the FOA. Pure component level demonstration of novel concepts is not sought under this FOA.

Q4.b If one company has already been selected for award negotiations under the earlier related GENSET FOA (DE-FOA-0001198), could that company be a subrecipient on an award under this SBIR/STTR FOA?

ANSWER: Provided the company is eligible under the pertinent criteria set forth in Section III (Eligibility Information) of the FOA it may participate as a subrecipient. However, ARPA-E is only accepting new applications under this FOA. Applicants may not seek renewal or supplementation of their existing awards through this FOA. See Section II.A (Award Overview) of the FOA for additional information.

Q5. Does the project only have to identify how to conduct the “Accelerated Life Testing” to show 10 year system life (*Identify the failure modes of the proposed system and justify why it can attain the lifetime target* (p.33)), or actually conduct that testing as indicated in the table on p.34 (*The system life capability of 10 years or more must be demonstrated via accelerated life testing (ALT)*).

ANSWER: As required per the table in Section IV.C.1 (Content and Form of Full Applications) of the FOA, applicants must describe and discuss the proposed effort, the technical background and approach, the R&D tasks, and the key technical risks, including demonstration of system life capability of 10 years or greater via accelerated life testing. ARPA-E will only consider Full Applications that propose a generator system to meet or exceed the technical performance targets set forth in Section I.F (Technical Performance Targets) of the GENSETS SBIR/STTR FOA. Accelerated Life Testing (ALT) shall be conducted to demonstrate the generator system life target of 10 years at a capacity factor of 99.9%.

Q6. Can the header and footer be in the margins or must they be within the text region outside the margins (*All pages must be formatted to fit on 8-1/2 by 11 inch paper with margins not less than one inch on every side. ... The ARPA-E assigned Control Number, the Lead Organization Name, and the Principal Investigator’s Last Name must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.* (p.30))?

ANSWER: Information identifying the application and the page numbers may be included outside the margins in the page headers and footers as described on p.30 in Section IV.C.1 (Content and Form of Full Applications) of the FOA.

II. Questions for week ending: JULY 31, 2015

Q7. It is not clear to me what is proposed for funding levels. Do you expect to fund many Phase 1 projects (with a relatively small budget, for 1 year) and then down select to 1-3 projects for Phase 2 funding, perhaps for year 2 and 3?

ANSWER: As set forth on the cover page of the FOA, ARPA-E may make one, multiple, or no awards. Award amounts may be up to \$3.225 million. Approximately \$7 million is anticipated to be awarded, subject to the availability of appropriated funds. Additional information concerning the number of awards ARPA-E anticipates making can be found in Section II.A (Award Overview) of the FOA.

Q8. Is there a time restriction to Phase I? Typically SBIR Phase I are 6 months to a year.

ANSWER: ARPA-E administers its joint SBIR/STTR program in accordance with the Small Business Act and the SBIR and STTR Program Policy Directives issued by the U.S. Small Business Administration (SBA). The SBIR Program Policy Directive provides that Phase I awards should not normally exceed six months, but longer periods of performance may be provided if appropriate for a particular project. The STTR Program Policy Directive provides that Phase I awards should not normally exceed one year, but longer periods of performance may be provided if appropriate for a particular project.

Q9. Section 2.3 on page 34 of FOA states that schedule should include delivery of a prototype at the end of the second project year. I presume this refers to start of Phase I, not start of Phase II of the project. What is the typical (and maximum) length of the ARPA-E funded Phase I Project ?

ANSWER: See ARPA-E's response to Q8 above regarding the period of performance for Phase I awards. Any application that has been selected for a period of performance of 24 months or more must deliver a generator system at the end of the second year. If the period of performance is more than 24 months, the prototype delivered at the end of second year need not meet all the GENSETS Technical Performance Targets described in Section I.F. (Technical Performance Targets) of the FOA.

Q10. Are we required to provide the budget for Phase IIS? What aspects of the proposal are used to assess suitability for Phase IIS funding?

ANSWER: Per FOA Section II.A (Award Overview) applicants must apply for a combined Phase I/II/IIS award. A Phase IIS budget is required per the instructions for preparation of the Technical Volume set forth in the table in FOA Section IV.C.1 (First Component: Technical Volume; Section 5 Budget), and FOA Section IV.C.3 (Third Component: SF-424A) regarding preparation and submission of the SF-424A. Note that these are two unique submission requirements. Both must be accomplished in order to meet the compliance criteria set forth at Section III.F.1 (Compliant Criteria) of the FOA. Evaluation criteria for full applications can be found at FOA Section V (Application Review Information).

III. Questions for week ending: AUGUST 7, 2015

Q11. Would an electric power plant that meets all specifications for capital cost reduction, energy efficiency, scaling, and zero cooling water consumption be considered responsive if it does so by eliminating steam cycles altogether such as by transferring either adiabatic flame heat or the flue gas heat to combustion air instead of to steam? Such a method would additionally eliminate heated return water.

ANSWER: ARPA-E will consider full applications that meet the Technical Performance Targets as provided in Section I.F of the GENSETS SBIR/STTR FOA and that do not fall under Section I.G

(Applications Specifically Not of Interest). GENSETS systems should produce 1 kW (electrical power) at 40% natural gas fuel to electrical conversion efficiency and a useful heat energy output of ≥ 1 kW (thermal) for residential hot-water and heating purposes.

Q12. Are there recommended or required performance durations for the individual Phase I, II, or IIS subsections?

ANSWER: ARPA-E administers its joint SBIR/STTR program in accordance with the Small Business Act and the SBIR and STTR Program Policy Directives issued by the U.S. Small Business Administration (SBA), which recommend performance periods for each phase of an award.. As set forth in the FOA, Section II.A (Award Overview), awards may have a combined maximum performance period of four years.

IV. Questions received by the question submission deadline: AUGUST 10, 2015

Q13. Schedule period: as a SBIR 1 submission what is the allowed budget period? We are assuming 1 year for a SBIR 1 submission with Jan. 2016 start date.

ANSWER: See ARPA-E's response to Q8 above regarding the period of performance for Phase I awards.

Q14. Future funding periods: should we give estimates for potential future funding periods (SBIR Phase II) or just provide the SBIR Phase I budget

ANSWER: See ARPA-E's response to Q10 above regarding budget submissions. Applicants must apply for a combined Phase I/II/IIS award and include budget information for each phase.

Q15.A SF 424 forms : in submitting do we need to also submit a detailed budget justification form and indirect rate justification?

Q15.B I am inquiring about the forms sf 424 and sf 424a for the GENSETS - SBIR/STTR FOA. The earlier versions of form sf 424a that we have filled For ARPA-E FOA's, the form had multiple tabs including full breakdown of Labor, Material, Travel, including back up for items above a certain Limit. However the version of SF 424a available under the current opportunity has a single tab. Are we getting a truncated version in Error.

Q15.C I have reviewed the template for the budget submission -- form SF 424a. It is a single tab in an Excel file. Is that correct? Is that the full extent of the budget submission outside of the 4 pages specified in the Technical Volume.

ANSWER: The submission requirements for SF-424 are correct as set forth in the FOA. If selected for award, applicants will be required to submit supporting documentation for their proposed award budgets as an element of award negotiations.

Q16. Can you please describe/define how to determine the percentage of costs for the prime small business per the following statement from the solicitation: if applying as the lead organization, the small business concern must perform at least 66.7% of the work in Phase I and at least 50% of the work in Phase II and Phase IIs, as measured by the total project cost. Does the 66.7% performance relate to total dollars through OH/G&A/fee- such that $\$225,000 \times 0.667 = \$150,075$ for the small business through OH/G&A/fee meaning that subcontractor costs must then also include the OH/G&A costs as part of their share? Or are costs and percentages for subcontractors and the small business prime based on direct costs only - meaning that \$75,000 could be expended with subcontractors before application of OH/G&A/fee by the small business prime contractor?

ANSWER: Total project cost includes all allowable costs incurred, both direct costs and indirect costs. Small business participation is measured by applying the relevant percentages to total project costs.

Q17. We are considering submitting an application. Our question is: Who would own the Intellectual Property once we propose our solution?

ANSWER: The distribution of intellectual property rights is discussed on ARPA-E's web site at [Award-Guidance](#). This information includes a summary of obligations under any ARPA-E award (found at [ARPA-E IP Fact Sheet - Small Businesses - 08 09 11](#)), and the corresponding award attachment (found at [Attachment 2 - Intellectual Property - Small Businesses](#)).