

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. Concept Paper Phase Questions:

Q1. Two questions regarding this funding opportunity:

Q1.a Does a small business need to submit a letter of intent?

ANSWER: No.

Q1.b Is the 4 page concept paper to be submitted by May 20, 2019 only an indication of the intent (e.g. letter of intent) or would the concept paper will be rigorously evaluated based on FOA criteria to select only a few companies to submit the full application?

ANSWER: Refer to the DE-FOA-0002108 funding opportunity announcement document, published on the ARPA-E Funding Opportunity Exchange website <http://arpa-e-foa.energy.gov>, for guidance on preparing and submitting a Concept Paper (FOA Section IV), and its evaluation (FOA Section V and FOA Section VI.A).

Q2. The company is developing a system that enables Will such an innovation fit – in your mind – under the scope of this (or other) topic under the AI campaign?

ANSWER: 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.

Q3. Is there a requirement for a research facility as a partner for this solicitation? I know that it is encouraged; but is it a must?

ANSWER: As set forth at FOA Section III.A.2 and FOA Section III.B.1, a single Research Institution must perform at least 30%, but no more than 60% of the work in Phase I and/or Phase II, as measured by the Total Project Cost, to be eligible for an award under the STTR program. There is no similar requirement to be eligible for an award under the SBIR program.

Q4. I have a question regarding DIFFERENTIATE FOA: DE-FOA-0002108 dealing with clarification of two Topics on Challenging Areas:

Q4.1 Challenge Problem Area 1.3: Materials/Molecules: Is this Area dealing with construction materials for energy related applications or may include additionally functional materials, i.e. electrocatalysts with more attractive properties?

ANSWER: Challenge Problem Area 1.3 is open to any Materials/Molecules that may have an energy-related impact. The design/enhancement of functional materials such as electrocatalysts is consistent with the objectives of this challenge problem area and potentially with the objectives of Challenge Problem Area 2.1.

QUESTIONS AND ANSWERS

Q4.2 Challenge Problem Area 2.1: Heterogeneous Catalysts: Is heterogeneous catalysts here defined as opposite to molecular catalysts and enzymatic systems and may include the inorganic/bulk electrocatalysts (PGM, PGM-free, metallic systems etc)? An example of possible catalytic systems from FOA mentioned (e.g. ammonia synthesis, fuel reformation, oxygen reduction), and one of the most effective ways at the moment to reduce oxygen is electrocatalytic Oxygen Reduction Reaction (ORR). Will inclusion of ML-enhanced discovery of low-cost electrocatalyst for ORR, ammonia synthesis, liquid fuels synthesis from CO₂ and water be a subject of interest for current FOA?

ANSWER: The ML-enhanced discovery of low-cost electrocatalyst for ORR is consistent with the objectives of this challenge problem area and potentially with the objectives of Challenge Problem Area 1.3.

Q5. [We] may submit a proposal ... in response to DE-FOA-0002108. Our proposal may address application of machine learning to [description of the proposed challenge]. ... In this regard, we want to ask the following questions:

Q5.1 What type of limitations apply to funding given to university or industry partners?

ANSWER: Reimbursable costs under Federal financial assistance agreements, including agreements awarded by ARPA-E, are governed by cost principles found at 48 C.F.R. Part 31.2 for for-profit entities and 2 C.F.R. Part 200, Subpart E for academic institutions. Also refer to FOA Sections III.A-C for cost-based SBIR/STTR program eligibility requirements.

Q5.2 Do you see any problems or limitations with the [proposed challenge]?

ANSWER: Refer to General FAQ 6.19.

Q5.3 What type of rules apply to supporting letters? ...

ANSWER: Refer to General FAQ 6.5. Also, referring to the DIFFERENTIATE SBIR/STTR Concept Paper template found at <https://arpa-e-foa.energy.gov/FileContent.aspx?FileID=cb193e30-cc34-46c4-8f4f-33dc83652f5a>, ARPA-E is not requiring supporting letters to be included with the content of Concept Papers.