

## ADMINISTRATIVE QUESTION AND ANSWER LOG

**DE-FOA-0003018 - Bipartisan Infrastructure Law (BIL) - Clean Fuels & Products Shot: Supporting Carbon Utilization Products via Electrochemical Conversion and Refinery and Petrochemical Facilities Retrofitting**

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Question #	Question	Answer	Posted
1	I'm interested to know if you have opportunities or information on how US companies might collaboratively work together. Can you match or make suggestions of how we might work with others?	There is no teaming partner list for this FOA. Applicants will need to establish their own connections with collaborators.	7/3/2024
2	Regarding Funding Opportunity Announcement DE-FOA-0003018, is the funding also applicable to the conversion of captured CO2 into sustainable aviation fuel?	Fuels, including sustainable aviation fuel, are acceptable products for this FOA with one exception: for TA-2, the production of fuels from biomass feedstocks is specifically not of interest and would not be eligible for funding.	7/3/2024
3	The two focus areas outlined in the FOA notice do not directly relate to our tech, as the company focuses on the industrial sector, rather than petrochemical. Would our company be eligible for this anyways? I believe we exactly fit the bill for technology that can "Transform Carbon Emissions Into Valuable Products", but not so much the focus areas.	DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The technology would be eligible for funding if it meets the technical requirements of the Topic Area and is not included in the "Applications Specifically Not of Interest" section of the FOA (p. 20-21).	7/3/2024
4	Could you please confirm whether a Direct Air Capture company would be eligible for any portion of a TA-1 award if it partnered with a CO2 utilization company?  My understanding from Section I.B.i.a. is that CO2 utilization companies would only be identifying CO2 from Direct Air Capture as a proposed source of CO2 but then using CO2 supplied by an industrial gas supplier at target specs. Is this correct? Or could a Direct Air Capture company partner on an application?	DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. Applications proposing R&D of direct air capture technologies are not of interest as specified in Section C (page 11), but that does not preclude scope of work encompassing "challenges around integration with the CO <sub>2</sub> source, and how these integration challenges would be addressed at scale," as stated on Page 4. Applicants to TA-1 may propose direct air capture sources of CO <sub>2</sub> .	7/11/2024
5	I plan to use a technology that was developed with a grant from DOE. How do I transfer the technology to my company and use it to apply for DE-FOA-0003018.	Negotiations for licensing intellectual property would be the responsibility of the potential licensee and the owner of said intellectual property.	7/11/2024
6	Can you please confirm that projects focused on the conversion of carbon oxides into value-added products are broadly eligible under Topic Areas 1 and 2, including projects that utilize carbon monoxide directly from industrial emissions (for example, gasification processes that produce waste CO emission streams or steel mill offgas), provided they align with all other requirements of the FOA and corresponding Topic Area? While such projects are not listed as "Applications Specifically Not of Interest," we are seeking confirmation given the variability in the language (carbon oxides vs carbon dioxide) throughout the FOA.	The FOA does not restrict the conversion of carbon oxides (including carbon dioxide, carbon monoxide, and mixtures thereof) under TA-1 and TA-2.	7/11/2024
7	1. With regard to Topic Area 2, "Feasibility Studies for Retrofitting of Refineries and Petrochemical Facilities for Carbon Conversion," what does DOE consider to be a "model facility;" can the "model facility" be a virtual model using simulation software such as Aspen HYSYS or the like?  2. With regard to Topic Area 2, how much time will be required for laboratory studies; will TA-2 require simulations be run in the lab using pilot scale models, or is this strictly an engineering survey utilizing existing technologies?	1. For TA-2, the terminology "model facility" is referring to the use of metrics (such as capacity, geography, and end markets) that are representative of an example facility, as opposed to the use of metrics corresponding to an existing, operational facility (which is also allowed under TA-2). "Model" in this instance is not referring to the type of modelling to be performed; DOE is not restricting the specific ways in which Applicants may propose to perform the project activities (such as through the use of simulation software), provided they meet the technical requirements of the Topic Area (see FOA p. 18-19).  2. It is anticipated for TA-2 projects to be paper studies; project activities do not need to include any laboratory work (see FOA p. 19).	7/16/2024

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8	<p>1. Since FFRDCs cannot lobby are they required to submit an SF-LLL?</p> <p>2. Are letters of commitment required for FFRDCs?</p> <p>3. What are the anticipated TRL levels for Topic Area 2?</p> <p>4. For TA1, is the one medium-term test of minimum 2,000 hrs. requirement continuous or cumulative?</p>	<p>1. See Section IV.C.xv. of the Funding Opportunity Announcement.</p> <p>2. See Section IV.C.iv. of the Funding Opportunity Announcement.</p> <p>3. TA-2 does not include any project activities related to technology maturation, so a technology readiness level was not specified (see FOA p. 19); it is anticipated for TA-2 projects to utilize existing technologies in the feasibility studies.</p> <p>4. The requirement is 2,000 cumulative hours.</p>	7/16/2024
9	Can you comment on whether or not biogenic CO2 captured from corn-ethanol production would be an eligible CO2 feedstock under this FOA? i.e. does it fall under "concentrated CO2 from capture technologies."	CO2 from corn-ethanol production is a point-source resulting from human activity, and thus is considered anthropogenic and is an eligible feedstock under the FOA.	7/22/2024
10	For Topic Area 1, would electric heating, eg, Joule, microwave, or induction heating for CO2 conversion be in scope? What about solid oxide electrolysis, in which most of the energy for the CO2 reduction is technically thermal?	Topic Area 1 will support R&D for electrochemical conversion of CO2 into value-added products with a specific focus on electrolyzer material set durability (Page 4). There are no restrictions specified in TA-1 with regards to electrolyzer material set or operational envelope.	7/22/2024
11	<p>1. We propose upgrading our equipment to achieve Technology Readiness Level (TRL) 7 with the grant funding, we believe our equipment is at TRL 6. Would that qualify for the grant? The reactor vessel we are planning as a next step is the same design and construction as a production reactor vessel. We want to use the grant to build and place this full size production reactor with 1000 metric tonnes per year capacity at the site of a large quantity of biogenic CO2.</p> <p>2. Our innovation is not around electrolysis - we want to use off the shelf electrolyzers. The technical review in the FOA document requires "Detailed discussion of electrolyzer and stack material set durability concerns." Are we still required to discuss electrolyzers in depth given that is not our area of focus?</p> <p>3. We have a large amount of purified CO2 available at our ethanol plant customer sites. The capture part is straightforward, we just divert it from the existing stacks putting it in the atmosphere. Our innovation upgrades that CO2 to fuel. Does that fit into focus? (TA-1)</p>	<p>1. Please note the financial assistance instrument that will be used to award funding would be a cooperative agreement. DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. TA-1 is intended to support engineering-scale R&amp;D for electrochemical conversion of CO2 with a specific focus on electrolyzer material set durability. Projects would be eligible for funding if it meets the technical requirements of the Topic Area and is not included in the "Applications Specifically Not of Interest" section of the FOA (p. 20-21).</p> <p>2. Applicants must include all technical requirements of the relevant Topic Area within their application.</p> <p>3. The focus of TA-1 is on electrolyzer material set durability and the conversion of CO2 into value-added products [ideally a minimum value of \$1 per kilogram of product (\$1/kg)]. Applicants may also propose other innovations, provided their technology and application meet the technical requirements of the Topic Area.</p>	7/25/2024

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12	Under DE-FOA-0003018 - two topics have been listed for potential funding opportunities viz. Topic Area 1 (TA-1) – “Engineering-Scale Testing of Electrochemical Systems for the Conversion CO2 into Value-Added Products”; Topic Area 2 (TA-2) – “Feasibility Studies for Retrofitting of Refineries and Petrochemical Facilities for Carbon Conversion”. We believe our proposed activity offers relevant solutions for CO2 reduction in both contexts. Would we qualify for both topic areas? How should we approach this?	Applicants should choose the most relevant topic area for their proposed project work and ensure their project is aligned with the technical requirements, project activities, and success metrics of the FOA. TA-1 projects are expected to perform physical testing of electrochemical systems for lower TRL technologies, whereas TA-2 projects are intended to be paper studies exploring the feasibility of facility retrofits utilizing higher TRL technologies. Applicants may also submit multiple applications, provided each scope of work is unique.	7/25/2024
13	My process takes CO2 from a fermenter or a carbon capture unit, converts the CO2 to CO, then feeds the CO into a second reactor to produce products. Can we include funding for the second reactor in the budget?	Research for the conversion of carbon oxides (CO2, CO, and mixtures thereof) into value-added products [ideally a minimum value of \$1 per kilogram of product (\$1/kg)] is supported by this FOA.	7/30/2024
14	<ol style="list-style-type: none"> <li>1. How is the funding given out. For example, in a lump sum at the start, after milestone completions, etc or is it negotiated if the application is successful?</li> <li>2. What are the legacy reporting requirements at completion of the project?</li> </ol>	<ol style="list-style-type: none"> <li>1. Per B.ii Award Administrative Requirements in Section VI Award Administration Information, the administrative requirements, including “Federal Payment” for DOE grants and cooperative agreements are contained in 2 CFR Part 200 as amended by 2 CFR Part 910.</li> <li>2. The Reporting Requirements Checklist, Form DOE F4600.2, issued upon successful negotiation of award (if selected), will outline the required reporting requirements for the specific project and can vary from project to project. See also B.xiii Reporting in Section VI Award Administration Information.</li> </ol>	7/30/2024
15	I'm reaching out as I have began to apply for DE-FOA 003018. I was unable to access the SF 424 application form because I do not have Adobe 8. May I have another copy of this form?	<p>Applicants can download the SF 424 Application in Exchange. Alternatively, Grants.gov is the official form repository and Applicants can also find the SF 424 Application under “Forms” in Grants.gov.</p> <p>If Applicants still have difficulty accessing the SF 424 Application, please 1) ensure you have a current version of Adobe (reader or program), and 2) confirm your internet browser setting is set to “always download PDF files” instead of trying to open the file within the internet browser itself.</p>	8/1/2024
16	Are you able to discuss how the Community Partners aspect of this proposal works?	<p>DOE Personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the FOA except through the established question and answer process as this is a competitive process.</p> <p>Please review Section I.D. "Research and Development (R&amp;D) Community Benefits Plan," Section IV.C.v. "Community Partnership Documentation" and Section IV.C.xviii "R&amp;D Community Benefits Plan" of the Funding Opportunity Announcement. If review of these sections does not answer your question, please clarify your specific concern and re-submit your question(s).</p>	8/1/2024

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17	Is co-electrolysis of CO2 and H2O in a high temperature solid oxide electrolyzer to produce syngas (H2/CO) responsive to Topic Area 1 (TA-1) of the DE-FOA-0003018?	DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The technology would be eligible for funding if it meets the technical requirements of the Topic Area and is not included in the "Applications Specifically Not of Interest" section of the FOA (p. 20-21).	8/7/2024
18	<p>My question relates to the specification of what carbon conversion is.</p> <p>Our concrete-based technology is not listed, it fundamentally converts anthropogenic CO2 into a solid state within the concrete, providing value to both the concrete's properties and to the manufacturer.</p> <p>Does application for this FOA make sense? Can I make an appointment to speak with a Program Coordinator or Manager on how to find an FOA similar to this, with better compatibility in the criteria?</p>	<p>DOE Personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the FOA except through the established question and answer process as this is a competitive process.</p> <p>DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The technology would be eligible for funding if it meets the technical requirements of the Topic Area and is not included in the "Applications Specifically Not of Interest" section of the FOA (p. 20-21).</p> <p>Additional Funding Opportunity Announcements may be found at the following locations:</p> <p><a href="https://netl.doe.gov/business/solicitations-hub">https://netl.doe.gov/business/solicitations-hub</a>  <a href="https://www.grants.gov/">https://www.grants.gov/</a>  <a href="https://netl-exchange.energy.gov/">https://netl-exchange.energy.gov/</a></p>	8/7/2024
19	Is it possible to schedule a call to discuss this FOA? We haven't applied for any grants thus far but this FOA applies to what we are working on very closely. We are using a new DAC tech so I'd like to understand if that rules us out.	<p>DOE Personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the FOA except through the established question and answer process as this is a competitive process.</p> <p>DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The technology would be eligible for funding if it meets the technical requirements of the Topic Area and is not included in the "Applications Specifically Not of Interest" section of the FOA (p. 20-21).</p>	8/7/2024
20	The FOA requests a "APPENDIX I – TECHNOLOGY MATURATION PLAN (TA-1 ONLY)". However, in the exchange submission portal, there is no entry to upload this document. Please advise.	<p>A Technology Maturation Plan (TMP) is not required with the application. Please refer to the "Content and Form of the Full Application" in Section IV of the FOA.</p> <p>In addition, please see Appendix F Statement of Project Objectives (SOPO) template, subtask 1.2 (~page 105 of the FOA) and the associated deliverable in Section D of the SOPO (~page 106 of the FOA). In summary, if selected for award, the initial TMP would be due 90 days after award and should be updated as needed throughout the project period of performance. A final TMP would be due within 90 days of project completion.</p>	8/12/2024
21	What is a financial risk? Is it something like not having money to pay matching? Others?	The standard definition of financial risk would apply.	8/14/2024

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22	Do you have a template for the summary slide?	No, there is not a template for the Summary Slide. Please see section IV.C.xii. of the Funding Opportunity Announcement for the required information to be included on the Summary Slide.	8/15/2024
23	Could you please respond ASAP considering the approaching deadline (8/27). For the References in the tech volume, there is confusing information in the FOA. On Page 23, it states that References are included in page limit; whereas on page 30 it states that the bibliography is not included in the page limit. Could you please clarify ASAP.	Foot and end notes within the technical volume text are counted towards the maximum page limit. However, references may also be provided in a bibliography section at the end of the technical volume, which is not counted towards the maximum page limit.	8/26/2024