

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. REGARDING MOD 06 ON THE FOA FOR TOPIC "NOVEL SUPERCONDUCTING TECHNOLOGIES FOR CONDUCTORS":

GIVEN THAT EXISTING EQUIPMENT MAY NOT BE ABLE TO MEET THE METRICS AS LAID OUT IN THE FOA, IS TOOL DEVELOPMENT SOMETHING THAT ARPA-E WOULD CONSIDER FUNDING AS A PORTION OF THIS TOPIC WORK?

ANSWER: ARPA-E will consider funding tool development that results in superconductor tape that meets the technical performance targets outlined in Table A in the FOA.

Q2. WE HAVE GENERAL QUESTIONS ABOUT THE RECENT CHANGES IN TT&O.

1) THE CURRENT VERSION OF THE SF424A BUDGET WORKSHEET CONTRADICTS THE FOA WORDING. IT STATES "APPLICANTS MAY CHOOSE TO NOT INCLUDE TT&O ACTIVITIES IF APPROPRIATE, AND DO NOT NEED A WAIVER TO DO SO." HOWEVER, FOA STATES THAT "PROJECT TEAMS MUST ALSO SEEK A WAIVER FROM ARPA-E TO SPEND LESS THAN THE MINIMUM 5% TT&O EXPENDITURE REQUIREMENT". PLEASE CLARIFY.

2) IN THE FUNDING OPPORTUNITY WORDING, IT LISTS THE FOLLOWING:

A. "EXAMPLES OF TT&O EXPENDITURES ARE AS FOLLOWS:

- DOCUMENTED TRAVEL AND REGISTRATION FOR THE ARPA-E ENERGY INNOVATION SUMMIT AND OTHER ENERGY-RELATED CONFERENCES AND EVENTS;**
- DOCUMENTED TRAVEL TO MEET WITH POTENTIAL SUPPLIERS, PARTNERS, OR CUSTOMERS;**
- DOCUMENTED WORK BY SALARIED OR CONTRACT PERSONNEL TO DEVELOP TECHNOLOGY-TO-MARKET MODELS OR PLANS;**
- DOCUMENTED COSTS OF ACQUIRING INDUSTRY-ACCEPTED MARKET RESEARCH REPORTS; AND**
- APPROVED PATENT COSTS."**

A. QUESTION: THIS SAYS DOCUMENTED TRAVEL TO MEET WITH PARTNERS. DOES THIS MEAN ALL MEETINGS WITH THE PROJECT PARTNERS, WHICH ALL SHOULD BE DIRECTLY RELATED TO SCOPE OF WORK AND MILESTONES, WOULD BE CONSIDERED ALLOWABLE TT&O COSTS?

ANSWER: 1. For this FOA, the 5% TT&O expenditure requirement is in effect. Applicants must request a waiver to spend less than the 5% minimum TT&O expenditure requirement.

2. All travel related to meeting with partners with regards to technology transfer and outreach is considered TT&O. Travel outside of those parameters is not TT&O.

Q3. WE ARE CURRENTLY CONSIDERING TO RESPOND THE ARPA-E TOPIC “NOVEL SUPERCONDUCTING TECHNOLOGIES FOR CONDUCTORS”.

THINKING ABOUT THE TOPIC’S GOALS AND MILESTONES, I AM CONSIDERING IT GOOD TO TEAM UP THE CONDUCTOR MANUFACTURERS SO THAT WE CAN ADDRESS THE CONDUCTOR CHALLENGES COMPREHENSIVELY.

ALTHOUGH THERE ARE STRONG CONDUCTOR MANUFACTURERS IN US, THERE ARE ALSO STRONG FOREIGN VENDORS AS WELL, IN PARTICULAR IN JAPAN.

MY QUESTION IS, CAN WE WORK/COLLABORATE WITH SUCH A FOREIGN MANUFACTURER UNDER THE ARPA-E DIALOG? OR DO YOU ENCOURAGE TO TEAM UP ONLY WITHIN US?

ANSWER: Please see ARPA-E General FAQ 3.1 ([FAQs | arpa-e.energy.gov](https://arpa-e.energy.gov)).

Q4. TECHNICAL VOLUME TEMPLATES FOR EARLIER ARPA-E FOAS OFTEN REQUIRE THE SPECIFICATIONS TABLE, SUCH AS TABLE A ON PAGE 114 IN FOA DE-FOA-0002784, TOPIC F, NOVEL SUPERCONDUCTING TECHNOLOGIES FOR CONDUCTORS, TO BE COMPLETED AND INCLUDED IN THE TECHNICAL VOLUME AS AN APPENDIX THAT DOESN’T COUNT TOWARDS THE TOTAL PAGE LIMIT.

THE CURRENT FOA MENTIONS “EVERY SUBMISSION MUST DESCRIBE HOW THE PROPOSED TECHNOLOGY WILL BE ABLE TO COMPLY WITH THE METRICS A.1-A.6 AND REPORT THE REMAINING METRICS IN TABLE A.” (SECTION B, PAGE 113). HOWEVER, THE TECHNICAL VOLUME TEMPLATE DOESN’T MENTION THE REQUIRED USE OF TABLE A.

IS THE USE OF TABLE A IN THE TECHNICAL VOLUME REQUIRED? COULD WE INCLUDE TABLE A, IN WHICH WE COMPLETE THE RIGHT COLUMN (PROPOSED SOLUTION AND JUSTIFICATION), AS AN APPENDIX THAT DOESN’T COUNT TOWARDS THE MAXIMUM ALLOWABLE PAGE LIMIT, EVEN IF THE USE OF TABLE A ISN’T REQUIRED?

ANSWER: The inclusion of Table A in the technical volume is encouraged but not required. As per the FOA, the applicant should describe how the proposed technology will be able to comply with the metrics A.1-A.6 and report the remaining metrics in Table A. If Table A is included in the Technical Volume, it counts towards the overall 14-page limit for Sections 1-5. ARPA-E will not accept Table A as an appendix in the Technical Volume. Technical Volumes must not exceed the maximum page lengths specified for each section of the Technical Volume.

Q5. THE QUESTION IS ABOUT DE-FOA-0002784 TOPIC NOVEL SUPERCONDUCTING TECHNOLOGIES FOR CONDUCTORS.

REGARDING A.10 "ALLOWED COMPRESSIVE STRAIN WITHOUT DEGRADATION TO IC" LISTED IN TABLE A ON PAGE 114, THE DISCUSSED COMPRESSIVE STRAIN IS IN WHICH DIRECTION WITH RESPECT TO THE TAPE?

ANSWER: The metric A.10 is in regards to the axial compressive strain in the tape.

Q6. I AM WRITING FROM ---REDACTED---, A COMMERCIAL FUSION ENERGY COMPANY BASED IN BOSTON. WE ARE CONSIDERING SUBMITTING A PROPOSAL IN RESPONSE TO DE-FOA-0002785, ON TOPIC F, NOVEL SUPERCONDUCTING TECHNOLOGIES FOR CONDUCTORS.

BEFORE WE DO, WE'D LIKE TO ASK FOR CLARIFICATION ON TWO POINTS:

- 1. THE FOA STATES ON PG. 16 THAT COST SHARE IS NOT REQUIRED. DO WE UNDERSTAND CORRECTLY THAT OUR ONLY REQUIRED FINANCIAL INPUT IS THE 5% TT&O COMMITMENT DESCRIBED ON PAGE 26?**
- 2. WE'D APPRECIATE FEEDBACK ON OUR INTENDED PROGRAM GOAL, WHICH IS TO PURSUE A HIGH-THROUGHPUT REEL-TO-REEL QUALITY ASSURANCE TOOL THAT WILL ALLOW MANUFACTURERS TO MEASURE LENGTH-RESOLVED CRITICAL CURRENT AT OPERATIONALLY RELEVANT CONDITIONS. WHILE THIS IS NOT DIRECTLY A MANUFACTURING TECHNOLOGY, IT ENABLES THE EVALUATION OF AT LEAST FOUR OF THE TECHNICAL PERFORMANCE TARGETS LISTED IN TABLE A ON PG. 91 OF THE FOA. THERE IS CURRENTLY NO SATISFACTORY METHOD TO ACCOMPLISH CRITICAL-CURRENT QA, LEAVING THE PROBLEM OF DETERMINING TAPE PERFORMANCE TO END USERS, AND LEAVING OPEN A KEY BUILD-TEST-LEARN CYCLE FOR MANUFACTURERS. OUR APPLICATION WILL INCLUDE LETTERS FROM KEY TAPE MANUFACTURERS ATTESTING TO THE RELEVANCE OF THIS QA TECHNOLOGY DEVELOPMENT. IS THIS AN APPROPRIATE DIRECTION FOR US TO TAKE?**

ANSWER: Q6.1: Cost share is not required for this FOA. Separately, unless a waiver is granted by ARPA-E, each Project Team must spend at least 5% of the Federal funding provided by ARPA-E on TT&O activities.

Q6.2: The primary focus of the FOA is novel fabrication methods for HTS tape or wire. Other manufacturing aspects are also important for the overall performance in the different applications and should be considered as they relate to the Topic objectives or proving out the



metrics; however, they should not be the singular focus of any proposal. As such, a proposal for a measurement tool without any tape or wire fabrication would likely be deemed non-responsive and may not be merit-reviewed.