

## 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. THIS IS NOT DEFINITELY STATED IN THE FOA. CAN A SINGLE APPLICATION ADDRESS MULTIPLE TECHNICAL CATEGORIES?

**ANSWER:** Submissions may include technologies and approaches that are simultaneously applicable to multiple technical categories. Individual technical categories include specific technical and technoeconomic targets that are required to be met. If selected, negotiation of project scope, milestones, and deliverables will consider all technical categories within which the proposed technology resides.

#### Q2. I NOTICED THAT THE DEADLINE FOR CONCEPT PAPERS FOR THE CIRCULARITY DE-FOA-0003303 IS STATED AS MARCH 12TH ON PAGE 1 OF THE PDF AND MARCH 19TH ON PAGE 5 OF THE PDF.

##### WHICH DEADLINE FOR CONCEPT PAPER SUBMISSION IS CORRECT?

**ANSWER:** Concept papers should be submitted no later than 9:30 ET on March 19, 2024. ARPA-E eXCHANGE, Grants.gov and FedConnect have been updated to reflect this submission date.

#### Q3. FOR PROJECTS CONSIDERED UNDER CATEGORY B:

##### (A) ARE NON-LITHIUM CHEMISTRIES CONSIDERED?

**ANSWER:** The FOA does not encourage nor exclude any battery chemistries. Battery chemistries that can meet the objectives, targets, and deliverables of the CIRCULAR FOA are considered to be responsive according to Section E, Technical Performance Targets, "Battery chemistry is selected and disclosed by the applicant. Applicant should identify and, as appropriate, provide descriptions of the anode, cathode, and electrolyte (organic or aqueous liquid, solid-state, etc)."

##### (B) IF YES, IS THERE ANY STIPULATION REGARDING A MINIMUM SPECIFIC ENERGY OF THE CELL OR PACK?

**ANSWER:** According to Section I.E and Table 1, Technical Performance Targets, "Battery chemistries that have a pathway to achieving a cell-level specific energy at BOL  $\geq$  175 Wh/kg are appropriate options for Category A."



**Q4. WE ARE INTERESTED IN SUPPLYING A CONCEPT PAPER FOR CATEGORY B OF THE DE-FOA-0003303 (CIRCULAR) PROGRAM AND HAVE A COUPLE OF QUESTIONS.**

**(A) OUR BATTERY PACKS CONSIST OF 5 TO 23 MODULES, AND WE COULD POTENTIALLY RECOVER MORE THAN 80% OF THE PACK BY REPLACING A MODULE. WOULD THE APPLICATION SUFFICE IF WE DEVELOP A CONCEPT TO DISASSEMBLE A PACK INTO MODULES, OR WOULD YOU ONLY TAKE A PROPOSAL THAT DISASSEMBLES A PACK INTO CELLS?**

**ANSWER:** According to section I.D, Technical Categories of Interest, “Examples of technologies specifically of interest to the CIRCULAR program, either as standalone solutions or in combination include... robotic systems capable of disassembling battery packs, in parts or in full, with the ability to learn autonomously and/or cooperate with humans”.

**(B) SHOULD WE DEMONSTRATE BOTH THE AUTONOMOUS DISASSEMBLY ROBOTS AND A NEW BATTERY PACK DESIGN WITH NEW BONDING METHODS, OR CAN WE SELECT ONE?**

**ANSWER:** ARPA-E does not comment on the technical merits of ideas or proposals. Multiple submissions are permitted assuming each is scientifically and technologically distinct.

**(C) SHOULD DISASSEMBLY ROBOTS KEEP ALL CELLS PHYSICALLY INTACT FOR REUSE/SALVAGE? OR WOULD YOU ACCEPT CONCEPTS THAT MAY DAMAGE THE CELLS BUT STILL HELP WITH RECYCLABILITY?**

**ANSWER:** Damaging the cells seems to contradict the FOA’s vision and the objective to recover manufacturing value. Submission should include technologies that are both within technical scope and capable of meeting the program milestones and objectives.

**Q5. I WAS WONDERING IF NEW BATTERY RECYCLING PROJECTS ARE OF INTEREST UNDER CATEGORY A IN DE-FOA-0003303.**

**ANSWER:** Recycling strategies, processes, and solutions, including modification of traditional classes of recycling approaches, by themselves, are outside the primary scope of this FOA.