

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. MY TEAM AND I ARE PREPARING A RESPONSE TO DE-FOA-0002785 UNDER THE PHYTOMINES TOPIC AREA. I KINDLY REQUEST CLARIFICATION ON THE FOLLOWING POINTS. THANK YOU IN ADVANCE FOR ANY REPLY YOU MAY BE ABLE TO PROVIDE.

OPIC LARE THERE LIMITATIONS ON THE PROVENANCE OR DEFINITION OF NICKEL-RICH SOILS? COULD MINE TAILINGS (CRUSHED MINERAL RESIDUES FROM PROCESSING) BE INCLUDED AS A SOIL TYPE IN THE PROPOSED PROJECT?

I DO NOT SEE A REQUIREMENT FOR LETTERS OF SUPPORT. IS THERE AN OPPORTUNITY TO PROVIDE THESE LETTERS BY INTERESTED STAKEHOLDERS (FOR EXAMPLE, MINING COMPANIES AND/OR BATTERY MANUFACTURERS)? IF A COMPANY IS PROVIDING THE NICKEL-RICH SOIL USED IN THE TRIAL, WOULD THEY ALSO PROVIDE A LETTER OF SUPPORT?

THE ARPA-E FAQ PAGE HAS A SERIES OF QUESTIONS AND ANSWERS ON CONCEPT PAPERS. IS THERE ANY REQUIREMENT TO SUBMIT A CONCEPT PAPER UNDER DE-FOA-0002785?

FOR THE RESPONSE TO TA1, THE RFP REQUIRES A "DESCRIPTION OF THE LIKELY DOWNSTREAM PROCESSING METHODOLOGIES TO YIELD BIO-ORE AND ESTIMATES OF THE TEA/LCA OF THE PROPOSED BIO-ORE GENERATION PROCESS". IS IT ALSO REQUIRED THAT THE PROPOSED TRIAL INCLUDES SOME BENCH OR PILOT-SCALE REPRESENTATION OF THIS DOWNSTREAM PROCESS? IS THERE A WAY TO GET CLARIFICATION ON WHAT WOULD BE INCLUDED UNDER "CONSIDERATION" IN THE FOLLOWING BULLET POINT UNDER "SUBMISSION SPECIFICALLY NOT OF INTEREST", EMPHASIS ADDED:

- **SUBMISSIONS AIMED SOLELY AT GROWING AND CULTIVATING TERRESTRIAL PLANTS, WITHOUT CONSIDERATION OF EXTRACTING AND REFINING METALS FROM HYPERACCUMULATED PLANT BIOMASS.**

I WOULD LIKE TO CLARIFY MY QUESTIONS. INSTEAD OF THE INITIAL LIST (EMAILED ON APRIL 14TH), MY QUESTIONS ARE:

- 1. ARE THERE LIMITATIONS ON THE PROVENANCE OR TYPE OF NICKEL-RICH SOIL TO BE USED FOR TESTING IN THE PROPOSED WORK?**
- 2. IS THERE AN OPPORTUNITY TO SUBMIT LETTERS OF SUPPORT FROM POTENTIAL STAKEHOLDERS?**
- 3. FOR THE RESPONSE TO TA1, THE RFP REQUIRES A “DESCRIPTION OF THE LIKELY DOWNSTREAM PROCESSING METHODOLOGIES TO YIELD BIO-ORE AND ESTIMATES OF THE TEA/LCA OF THE PROPOSED BIO-ORE GENERATION PROCESS”. IS IT ALSO REQUIRED THAT THE PROPOSED TRIAL INCLUDES SOME BENCH OR PILOT-SCALE REPRESENTATION OF THIS DOWNSTREAM PROCESS?**

ANSWER

- **ARE THERE LIMITATIONS ON THE PROVENANCE OR DEFINITION OF NICKEL-RICH SOILS? COULD MINE TAILINGS (CRUSHED MINERAL RESIDUES FROM PROCESSING) BE INCLUDED AS A SOIL TYPE IN THE PROPOSED PROJECT?**

There is no limitation on the provenance of nickel-rich soil. The FOA also states: “Applications should provide information on the prevalence of the environments in which the phytomining system is potentially applicable and the potential relevance of that system to nickel accumulation at commercial scale.”

- **IS THERE AN OPPORTUNITY TO PROVIDE THESE LETTERS BY INTERESTED STAKEHOLDERS (FOR EXAMPLE, MINING COMPANIES AND/OR BATTERY MANUFACTURERS)? IF A COMPANY IS PROVIDING THE NICKEL-RICH SOIL USED IN THE TRIAL, WOULD THEY ALSO PROVIDE A LETTER OF SUPPORT?**

ARPA-E does not require applicants to include letters of support with their Full Application. Any letters of support submitted with a Full Application would count against the Technical Volume page limit of 14 pages.

- **IS THERE ANY REQUIREMENT TO SUBMIT A CONCEPT PAPER UNDER DE-FOA-0002785?**

No.

- **IS IT ALSO REQUIRED THAT THE PROPOSED TRIAL INCLUDES SOME BENCH OR PILOT-SCALE REPRESENTATION OF THIS DOWNSTREAM PROCESSES?**

No.

- **IS THERE A WAY TO GET CLARIFICATION ON WHAT WOULD BE INCLUDED UNDER "CONSIDERATION" IN THE FOLLOWING BULLET POINT UNDER "SUBMISSION SPECIFICALLY NOT OF INTEREST", EMPHASIS ADDED:**
- - **SUBMISSIONS AIMED SOLELY AT GROWING AND CULTIVATING TERRESTRIAL PLANTS, WITHOUT CONSIDERATION OF EXTRACTING AND REFINING METALS FROM HYPERACCUMULATED PLANT BIOMASS.**

There is no need for additional clarification. The language is clear as written.

Q2. WE ARE WORKING WITH EXPERTS TO SUBMIT AN APPLICATION PACKAGE FOR THE PHYTOMINING OF NICKEL. YOUR CLARIFICATIONS ON THE FOLLOWING ITEMS WILL BE DEEPLY APPRECIATED.

- 1) **SECTION II. A. (AWARD OVERVIEW, PAGE 11) STATES THAT "APPLICANTS MUST APPLY FOR A COMBINED PHASE I/II/IIS AWARD (UNLESS THE APPLICABLE TOPIC APPENDIX STATES OTHERWISE)." UPON EXAMINING SECTION XVIII. APPENDIX L, WE DID NOT SEE ANY SPECIFIC INFORMATION ON THE PHASES. THE TABLE OF PAGE 117 SHOWS THE FUNDING MAXIMUM AS \$2,500,000. WOULD IT BE OKAY FOR US TO SUBMIT A COMBINED PHASE I/II PROPOSAL WITH THE AWARD CAPPED AT \$2,268,752?**

- 2) **THE TABLE ON PAGE 6 (REQUIRED DOCUMENT CHECKLIST) SHOWS THAT SECTIONS 1-5 OF THE TECHNICAL VOLUME WOULD HAVE 14 PAGES MAXIMUM. THE TECHNICAL VOLUME TEMPLATE STATES (ON PAGE 2 OF 9) THAT "THE CUMULATIVE LENGTH OF SECTIONS 1-5 SHALL NOT EXCEED 20 PAGES." ARE WE TO ASSUME THAT 20 PAGES WOULD BE THE MAXIMUM PAGE COUNT FOR SECTIONS 1-5?**
- 3) **DO WE NEED TO SEGREGATE PHASE I AND PHASE II IN THE TECHNICAL VOLUME AND BUDGET? THE TECHNICAL VOLUME TEMPLATE APPEARS TO SHOW A COMBINED PRESENTATION WITHOUT SEGREGATION OF THE PHASES. PLEASE CLARIFY.**

ANSWER: 1. Each Applicant is free to propose the structure of their proposed project within the limits of the SBIR/STTR Phases described in Section II of the FOA and within the funding and period or performance limits described in the Exploratory Topic

2. As noted in Required Documents Checklist in the FOA, 14 pages is the maximum for Sections 1-5 of the Full Application. The Full Application template will be corrected to be consistent with the FOA requirement.
3. We envision supporting only single phase projects.