

Frequently Asked Questions: DE-FOA-0001043, LAB 14-1043
Scientific Data Management, Analysis and Visualization at Extreme Scale 2
Posted December 20, 2013
Updated March 20, 2014

This document will be updated with answers to the frequently asked questions that are received – please visit this page occasionally.

The January 8th version of this FAQ includes some answers that are revised positions and also reflects some amendments to the solicitation. Changes have been made based on feedback from the research community regarding unintended consequences of the original constraints on the numbers of proposals and especially pre-proposals. Please read carefully and note that deadlines for pre-proposals and encouraged full proposals have been extended to allow applicants time to respond to the revised guidance.

A brief summary of the changes follows:

- The cap on full proposals per institution is raised to three instead of two and now applies only to lead-institution proposals.
- There is no per-institution cap on collaborator or sub-awardee proposals.
- The cap on the number of proposals in which an individual may participate is increased from two to three.
- The deadline for pre-proposals is extended to February 7, 2014.
- The deadline for encourage/discourage notification is extended to February 21, 2014.
- The deadline for submission of encouraged full proposals is extended to April 2, 2014.

Q-1: The Lab Announcement says, "A given DOE National Laboratory may submit at most three proposals to this Announcement." Does that mean a given lab can *lead* at most three proposals, or participate in *any capacity* in at most three proposals?

A-1: The quoted wording means a DOE National Laboratory can be the project lead for a total of three proposals. The intent is for the lab leadership to do thoughtful triage, but also to encourage putting together integrated proposals. That's one reason why the window for response is as long as it is.

There is no limit on the number of proposals submitted as a collaborator institution.

Q-1A: If a DOE National Laboratory has multiple locations, does the restriction apply to each location separately?

A-1A: No. A DOE National Laboratory that has multiple locations may submit at most three leading-institution proposals for all locations.

Q-1B: There is a similar restriction to three proposals in the FOA. Is the interpretation the same for university and/or industry applicants?

A-1B: Yes.

Q-1C: If a member of our staff applies as co-PI on a proposal led by another organization, does that count as one of our three proposals?

A-1C: No.

Q-2: Is there a limit on the number of pre-proposals that an institution may submit, either as the lead or as a collaborator?

A-2: An institution (whether DOE National Lab or a non-lab institution) may be the lead for at most six pre-proposals. There is no limit on the number of pre-proposals as a collaborating institution.

Q-3: Where can I find more information about the supercomputing facilities that are supported by ASCR?

A-3: General information about ASCR-supported facilities is available here, including links to information about each facility and the relevant allocation policies:
<http://science.energy.gov/ascr/facilities/>.

Q-4: Where can I learn about technology for scientific data management, analysis and visualization that has had ASCR support in the past?

A-4: There is no comprehensive list of such technologies. However, a broad selection of such tools and capabilities may be found on the site for the ASCR-supported SciDAC Institute for Scalable Data Management, Analysis and Visualization: <http://sdav-scidac.org/toolkit.html>.

A list of projects selected for funding under the 10-256 Scientific Data Management, Analysis and Visualization at Extreme Scale Lab Announcement and companion FOA is here:
<http://science.energy.gov/ascr/research/computer-science/sdm/>.

Q-5: With reference the section "Support for Partnerships" - did you have a percentage in mind for another Office of Science program office to co-fund discipline-specific research, or does this really depend on the details of the research?

A-5: There is no set percentage or expectation. Historically, the ASCR CS program has not been willing to support domain scientists whose primary support comes from other offices or agencies. That gives one indication of what would be appropriate.

Another is to look at the balance in terms of which discipline(s) benefit from what is proposed: mostly CS, mostly one other SC office, or some different mix. If it is mostly CS or a mix of science disciplines, support from another program may be welcome but is not required. If a single science discipline would benefit from the work, support from the relevant program office within the Office of Science would be an important indicator of the value of the proposed effort, without which ASCR support is unlikely.

Q-6: The call discusses managing data from large scale simulations and also integrated analysis of simulation and experimental data. Would a proposal that focused only on management and analysis of experimental data be in scope?

A-6: This call is focused on responding to the challenges of the exascale environment and emerging hardware architectures. The focus only on experimental data is out of scope. We anticipate having a call that will address experimental and/or observational data next year, subject to the availability of funds.

Q-7: I don't see a discussion of data mining and/or clustering in the call. Would a proposal that addresses in situ approaches to data mining and/or clustering be within scope?

A-7: Yes. "Data mining" and "clustering" refer to methods for data analysis and research on in situ approaches to these methods is in scope.

Q-8: Is the FOA open to non-US applicants?

A-8: Yes.

Q-9: Can a university be the lead institution on a proposal that includes a DOE National Laboratory as a collaborator?

A-9: Yes.

Q-10: Is a Federally Funded Research and Development Center (FFRDC) with primary sponsorship by a Federal agency other than DOE eligible to apply as a sub-awardee to a DOE National Laboratory?

A-10: Yes.

FFRDC's that do not have DOE as a primary sponsor may also apply as collaborating or lead institutions with a DOE National Lab as a lead or collaborator. In this case, the FFRDC would submit a grant application.

Q-11: We have several questions about preparation and submission of pre-applications and encouraged full proposals.

Q-11.1: For the Pre-Application phase, it is unclear to me if the PI at the lead institution only submits the pre-application, which would include a summary budget table; or do both institutions need to submit the same pre-application? (Our University will be the lead; one other university will be involved as a sub-award.)

A-11.1: A single pre-application per proposed project from the lead institution is sufficient in all cases. It should include a summary budget table that covers all participants. The required conflict-of-interest list should also cover all participants.

Q-11.2: If more than one institution is involved, I assume this means the project is considered to be a collaborative research project and should follow the instructions regarding collaborative applications; is this correct?

A-11.2: Yes.

Q-11.3: If we are invited to submit a full application, I believe each institution would submit the same application, but the non-lead institution would include a budget and budget justification only for their institution. If I am interpreting the instructions correctly, the lead institution's application would include an overall budget and budget justification, but would also include the R&R sub-award budget for the non-lead sub-award institution. Is this correct?

A-11.3: (Revised and expanded) This is correct for a collaborating institution. However, if a sub-award from the lead institution is proposed, a separate proposal is not required from the proposed sub-awardee institution since the lead institution will include all of the budget information and relevant details.

All collaborative applications must use the same title, abstract and technical narrative. In addition, such applications must describe the work and the associated budget for the research effort to be performed under the leadership of the principal investigator in each participating institution. The first page of collaborative applications should contain the project title followed by a tabular list of the researcher names, institutions, annual budget, and role as lead PI or co-PI of each participant. These collaborative applications should all have the same title as the lead institution. Each collaborating institution submitting a application must use the same title.

Our intent is to create from the various applications associated with a collaborative group one document for merit review that consists of the common, identical application materials combined with a set of detailed budgets from the partner institutions. Thus, it is very important that every application in the collaborative group be identical (including the title) with the exception of the budget and budget justification pages.

Q-11.4: If the project is awarded, I believe the total award (lead + sub-award) will be made to the lead institution; the lead institution will be in charge of administratively overseeing each sub-award. Is this correct?

A-11.4: Not necessarily. We distinguish between collaborative proposals, for which separate awards are made to each participating institution, and sub-awards, in which the lead institution receives all of the funds and issues sub-contracts to other participants.

The ASCR Computer Science program typically makes a separate award to each collaborating institution, commonly in the form of a cooperative agreement rather than a grant. This assumes that each collaborating institution has submitted its own proposal, as discussed in question 11.3. A single large award from which sub-awards are made is also possible, but not preferred. The decision about how to structure the budget should be based on what is

appropriate for the proposed research and the level of coordination by/with the lead institution that is required, though DOE budgetary concerns may also be a factor.

Q-12: Can an industry applicant be the lead for a proposal?

A-12: Yes.

Q-13: Regarding university co-PIs on lab-lead projects, since the project is lab-lead, are we responding to the LAB 14-1043 announcement, are we responding to the non-lab call?

A-13: The lab responds to LAB 14-1043 and the university responds to DE-FOA-0001043. You both use the same title and include the same budget. As noted in A-11.1 above, only the lead needs to submit the required pre-proposal.

Q-14: DE-FOA-0001043 specifies a \$100K floor for collaborative projects involving a lab. The lab call makes no such specification. For lab-led projects, is the \$100K floor still in effect for non-lab participants?

A-14: Yes.

Q-15: Is a proposal involving two universities but not a DOE National Laboratory still regarded as a collaborative proposal? Does it make any difference whether there are separate proposals from each university or sub-awards to a single university?

A-15: Yes, this would be a collaborative proposal in either case. See question 11 above.

Q-16: Is it correct that pre-applications for university-led projects should have a one-page cover sheet, up to two pages of technical narrative, and a conflict-of-interest (COI) list?

A-16: Yes. Figures and references, if included, must fit within the two-page limit.

The COI list should be a single consolidated list for the Lead Principal Investigator and each project collaborator (supported or unsupported) that includes, for all project participants collectively, an alphabetized list of collaborative co-investigators including co-authors of the past 48 months, co-editors of the past 24 months, graduate and postdoctoral advisors/advisees. This list should be the final set of pages in the pdf for the pre-application.

Q-17: Can an individual participate in more than three pre-proposals/pre-applications?

A-17: Yes. This is to allow for the possibility that one more submissions might not result in encouragement to provide a full proposal/application. Choices would have to be made if more than three of pre-proposals/pre-applications were invited; that decision will not be done by DOE.

Q-18: Would a pre-application/pre-proposal that addresses using visualization for debugging, software optimization, or support for supercomputer system administrators be within scope for the 14-1043 solicitation?

A-18: No. These are interesting uses of visualization, but they are out of scope for this call.

Q-19: On page 13 under heading C. Maximum and Minimum Award Size, the FOA indicates that the Ceiling for awards is

\$500,000 per year for non-laboratory applications that are part of a collaborative project with at least one DOE national laboratory.

\$350,000 per year for applications for projects that do not involve one or more DOE national laboratories.

Am I correct that this means the maximum total budget for a collaborative project is either \$500,000 or \$350,000 per year, depending on whether a DOE national laboratory is involved?

A-19: No. The ceilings of \$500,000 and/or \$350,000 apply to the maximum amount of funding that may be awarded to a single institution per year, not to the overall budget for a project that spans multiple organizations.

Q-20: I plan to propose research on Research Theme 1: Usability and User Interface Design. The FOA states,

Research on this theme may involve experts from disciplines outside of computer science, such as cognitive and perceptual psychologists, cultural anthropologists, decision scientists, visual artists, etc., as well as scientists who are potential users of ASCR-supported technology for data management, analysis and visualization.

Does this mean that my proposed budget can include funding for scientists from other disciplines (e.g., physicists, chemists) who would be representative users of the software?

A-20: Yes. Under this research theme, domain scientists can be funded for their participation in usability studies and related activities that inform the design of software for data management, analysis and/or visualization, but not for research in their disciplines.

Q-21: If a pre-proposal/pre-application results in an invitation to submit a full proposal, can the budget be changed?

A-21: Yes.

Q-22: If a pre-proposal/pre-application results in an invitation to submit a full proposal, can the list of participants be changed?

A-22: The full proposal cannot include additional co-investigators or senior personnel who contribute intellectual content to the proposal, given our use of the pre-proposal/pre-application COI list to begin developing lists of reviewers. However, junior personnel such as programmers can be identified later and may not be identified by the time of proposal submission.

Q-23: On page 20 of the solicitation under Certifications and Representations, the following paragraph is included:

If chosen for a grant award in excess of \$1,000,000, it will, by the end of the Federal Government's fiscal year, upgrade the efficiency of its facilities by replacing any incandescent lighting of the type for which section 325 of the Energy Policy and Conservation Act (42 USC 6295) establishes a standard that does not meet or exceed the energy efficiency standard for incandescent light bulbs set forth in that section with a lamp that meets or exceeds the standards for lamps established in or pursuant to that section.

If a company with facilities located globally submits an application, does this mean all facilities for that company would need to comply with this or only the facility where the work will be performed?

A-23: This provision only comes into play with an award of more than \$1M.

The legal requirement only applies domestically, and probably only to the applicant organization—assuming that the application is from a particular unit of Caterpillar, not the entire corporation. Section 325 specifically refers to “general service incandescent lamps”; we can no longer purchase any. As they burn out, if they get replaced, it is OK.

Q-24: Do university and/or industry collaborators submit encouraged full applications through PAMS?

A-24: University and industry applications, whether as leads or collaborators, must be submitted through Grants.gov. National lab proposals are to be submitted through PAMS.

Q-25: I will be submitting an encouraged full proposal/application on behalf of a collaborating institution. What do I have to do to make sure that it is appropriately linked to the lead organization's full proposal/application.

A 25: See answer 11.3 above. The pre-proposals/pre-applications included information about collaborating institutions and investigators, so we already know what to expect. The

collaborating submissions must have the same title as the lead's and the technical narrative should be the same. No further action on your part is required to have the submissions linked.

Q-26: I am confused about the budget. Is four years of support available under this call? Is there a particular start date that should be used?

A-26: Funding for three years is available under this call. Award support may be spread across four fiscal years for the convenience of the government.

Use a start date that allows time for proposal review and contracting, perhaps September 1, 2014. When proposals are selected for award, budget negotiations will include setting the start date to meet requirements of the award process. Note that the call allows for the possibility of making some awards with FY 2015 funding, which implies a later start date.