

Frequently Asked Questions (FAQs) for the
REACHING A NEW ENERGY SCIENCES WORKFORCE FOR HIGH ENERGY PHYSICS (RENEW-HEP)
Funding Opportunity Announcement
(DE-FOA-0002759)

How does the Office of High Energy Physics currently support MSIs and Underrepresented Groups?

This is the first of its kind program for the Office of High Energy Physics (HEP). HEP has supported PIs and research groups at MSIs in the past, although the majority of the time they were large, research-intensive universities, as opposed to smaller universities or colleges. HEP recognizes the fact that this sort of program is long overdue.

How does this new solicitation fit in to the overall HEP Program?

The SC RENEW initiative builds foundations for research and training at historically underrepresented institutions in the SC research portfolio through new partnership models and through supporting research and training applications that include project elements aimed at directly addressing barriers to participation. An integral part of this effort, is the evaluation of successful approaches, including the impact of the RENEW initiative on recruiting and retaining individuals from diverse backgrounds.

This FOA seeks to help broaden and diversify the high energy physics community. We want to draw from the broadest possible pool of STEM talent within the U.S, at both the individual and institutional level to thereby help ensure the continued success of our mission. Historically, our community has been drawn primarily from a pool of potential talent that is less diverse than the general U.S. population, and has been concentrated at larger, research-intensive academic centers.

What does a successful proposal look like?

A successful proposal is one that accomplishes the expressed goals of the FOA:

(1) increasing the likelihood that participants from underrepresented populations, such as those present at minority serving institutions (MSIs), will pursue a career in a Science, Technology, Engineering or Math (STEM) related field; and (2) supporting investigators and building research infrastructure at institutions that have not traditionally been part of the particle physics portfolio.

A successful application will not aim to increase the size of a currently-supported HEP research program by seeking additional funding through this FOA.

Who can apply?

Applications from MSIs are particularly sought, though it is anticipated that groups from research institutions where substantial research infrastructure is already in place may play an important role in recruiting and hosting participants or cohorts of participants from neighboring institutions, either directly or through partnering arrangements.

All types of domestic applicants are eligible to apply, except nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

DOE National Labs -- Office of Science or NNSA labs -- may apply as the lead of a multi-institution team. Multi-institution teams may propose subawards to other DOE National Labs or FFRDCs, universities or colleges, or other eligible public or private institutions as identified in the FOA. There is no restriction or requirement on the institute teaming arrangement for multi-institution applications. A single application is submitted representing the team, with one lead-PI from the lead-lab identified.

Other eligible institutions such as Universities and Colleges may apply for single-institution "seed" awards. Multiple PIs from the same institution may apply on a single seed application.

What restrictions are there on applications?

Applicant institutions are limited to no more than 3 applications with a lead PI from a single institution, this includes national laboratories. DOE will consider the latest received submissions to be the institution's intended submissions.

Who can participate in a multi-institution team?

Multi-institution teams may propose subawards to other DOE National Labs or FFRDCs, universities or colleges, or other eligible public or private institutions as identified in the FOA. There is no restriction or requirement on the institute teaming arrangement for multi-institution applications. A DOE National Lab may partner with as many or as few institutions as necessary and appropriate to carry out the research being proposed.

What are you looking for in a multi-institution team?

Multi-institution teams should have the appropriate technical skill and level of effort to address all aspects of the multi-faceted research being proposed. Clear explanation of what each institution contributes and why it is necessary for the success of the project should be clear from the FOA. Description of the management and coordination of multi-institution teams should be included to demonstrate that the team has thought through the communication needed for successful development, but also the risk mitigation necessary to respond to issues that may arise over the course of a multi-year research project and ensure the proposed research is carried out successfully. Explanations of these breakdowns are expected to be more thorough for the larger lab-led proposals.

Do collaborative submissions need to have identical applications with the exception of the budget, budget justification and cover page?

Collaborative submissions from multi-institutional teams should have identical applications with the exception of cover page, budgets, budget justifications, and supportive appendices.

What are the award sizes?

It is anticipated that award sizes may range from \$50,000 per year to \$500,000 per year with a median award size between \$200,000 per year and \$300,000 per year. The award size will depend on the number of meritorious applications and the availability of appropriated funds.

For multi-institution team applications, it is expected that no more than 25% of the total budget be allocated to non-MSI participants.

What should the budget narrative include?

For all applications the budget narrative should go beyond stating the costs of the proposal, and should provide an explanation and justification for the funding requests from **all participants**, including subawards to the non-lead institution, if relevant. This should include high level descriptions of the work being carried out and the level of effort needed to accomplish it at each institution in each year. Direct and indirect charges may be separated out for easier explanation. It should be clear to reviewers why in each fiscal year the work being done requires the budget being requested.

What are Letters of Collaboration and why might I need one?

Letters of Collaboration are statements that, should a project be supported, the letter writer and the collaboration they represent agrees, in principle, to support the resulting product through routine maintenance and upkeep using funding external to this FOA.

Applications targeting large collaborations, may choose to include such letters to provide reviewers with a level of assurance that the proposed impact of the research will be realized. An example of when this might be appropriate could be development of a detector independent charged particle tracking algorithm based on a neural net with proposed applications to ATLAS, CMS, DUNE, and LHCb. Letters of Collaboration from appropriate ATLAS, CMS, DUNE, and LHCb Managers stating an intention to take on the routine support and maintenance of this new algorithm in their software environment would assure reviewers that the proposed multi-experiment impact would be realized if successful.

What level of hardware support is acceptable?

You are allowed to request up to \$5,000 per institution for research equipment. In this context research equipment means things like oscilloscopes and other lab equipment, it does not

include computers and related computing technology. There's a separate budget category for that, but there is a constraint on buying hardware.

Is travel allowed?

Travel will be supported at a lower priority level, but modest requests are permissible to facilitate collaboration and disseminate scientific results.

My institution is allowed to submit three applications, should we?

The limit of three applications was set to allow larger institutions the opportunity to submit strong proposals across multiple HEP subprograms and research areas. Judging between diverse proposal topics can be difficult for a single institution to determine what will review best. It is expected that it will be rare that this high upper limit should be approached.

The review process is expected to be extremely competitive, and institutions should prioritize submitting high quality proposals.

There seems to be conflicting information between the FOA and other sources, which is right?

If conflicting information is circulating, the FOA is correct. Please alert Dr. Brian Beckford to address the issue.