Frequently Asked Questions to DOE Comparative Review in HEP

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Eligibility

Q1: Who is eligible to apply to this program?
A1: Applicants eligible to apply must be from a regionally accredited U.S. academic institution or from a nonprofit organizations described in Section 501(c)(3) of the Internal Revenue Code.

Proposal Types

Q2: What kinds of proposals are you looking for?
A2: We are soliciting proposals for research in High Energy Physics (HEP) in the HEP comparative review FOA. All applications must address at least one of the six HEP subprograms described in the Funding Opportunity Announcement. Proposals that are not consistent with the scope of the research described in the FOA may be administratively declined without review.

Q3: How will you handle proposals that are not for direct support of research, like conferences, project-specific R&D or fabrication, experiment operations, computing support, etc.?
A3: All such applications must be submitted to the general Office of Science (SC) open solicitation. The HEP comparative review FOA [DE-FOA-0000948] is for direct support of HEP research activities.

Q4: Can I submit a research proposal to the general Office of Science open solicitation instead of the HEP comparative review FOA?
A4: New or renewal proposals submitted to the general SC solicitation (i.e., DE-FOA-0000768, available at the URL: http://science.energy.gov/hep/funding-opportunities/) will be

reviewed following standard merit review criteria (see *Review Process*); however, funding available to respond to proposals submitted to the general SC solicitation will be extremely limited.

New Faculty Members and Those without Current HEP Grants

Q5: I am a tenure-track/tenured faculty member at my institution and want to apply for an HEP research grant. What are the possible ways for me to apply?
A5: There are several possibilities, depending on the specific situation:

- If you want to apply for your own standalone grant, you can submit an individual proposal to the HEP comparative review FOA.
- If your institution currently has a HEP grant that you want to join, but it is not up for comparative review this year, you can apply to the HEP comparative review FOA as a standalone proposal for a one- or two-year period (depending on the remaining term of the current institution's project period) and then re-apply with the rest of the group when their grant ends.
- If your institution currently has a HEP grant that you want to join and it is up for comparative review this year, you can apply as part of the proposal to the HEP comparative review FOA.
- If you are a junior faculty member, you may also be eligible for funding under the Office of Science Early Career Research Program; all eligible junior faculty members are strongly encouraged to apply to this program. See additional information below.

Q6: I am a new tenure-track junior faculty member at my institution. Can I apply to both the HEP comparative review FOA, as well as the Office of Science (SC) Early Career Research program?
A6: Yes, you can submit the same proposal to two different Office of Science solicitations at the same time, but if both proposals are successful depending on the outcome of the merit review process in each, only one can be funded. You should indicate in any proposal that you have applied to two different FOA's.

Q7: I will be a new assistant professor, starting my first faculty position on September 1, 2014. Can I apply to the comparative review FOA?
A7: While you may apply, be advised that evidence of research productivity while holding your faculty position is considered highly desirable. Proposals from first year junior faculty lacking such evidence will likely be assigned a lower funding priority as part of the comparative review process.

Q8: I applied to a previous call for HEP comparative review proposals but my proposal was declined. Can I apply again to this funding opportunity?
A8: Yes.

For Principal Investigators (PIs) with Existing HEP Grants

Q9: I have an existing HEP grant that was funded following the HEP Comparative Review process in FY12 (or in FY13), and the award expires before September 30, 2014. If I want to renew that grant, how do I apply?
A9: If your grant was funded through a previous HEP Comparative Review process and expires before September 30, 2014, and you want to renew the grant, you are strongly encouraged to submit a proposal under the new HEP Comparative Review FOA [DE-FOA-0000948]. This holds whether the proposal corresponds to the same research scope or to a change of research scope relative to the one that was reviewed through a previous comparative review process.

Q10: I have an existing HEP grant that did not go through any of the previous HEP Comparative Review processes, and the award expires before September 30, 2014. If I want to renew that grant, how do I apply?
A10: If your grant expires before September 30, 2014, you are strongly encouraged to submit a proposal under the new HEP Comparative Review FOA [DE-FOA-0000948].

Q11: My current grant expires after April 1, 2014, so I would normally submit my renewal proposal after the new proposals are due. Should I submit a proposal to the new FOA or a renewal proposal to the general SC solicitation?
A11: We strongly encourage you to submit a new proposal to the new HEP Comparative Review FOA [DE-FOA-0000948]. New or renewal proposals submitted to the general SC solicitation will be reviewed following standard merit review criteria (see the *Review Process* section of this FAQ below); however, funding available to respond to proposals submitted to the general SC solicitation will be extremely limited.

Q12: If my existing HEP grant is only renewed for a short term in FY2014, how do I request funding for future years?
A12: You will also need to submit a proposal to the new HEP comparative review FOA [DE-FOA-0000948]. Grants funded under this solicitation will generally be multi-year awards.

Q13: If I have an existing HEP grant that expires after September 30, 2014, do I need to apply to the Comparative Review FOA?
A13: Not this year. If your grant expires in FY2015 (Oct. 1, 2014 – Sept. 30, 2015) you are urged to apply next year, under the new HEP Comparative Review FOA for FY15, by the deadline established next year for that particular FOA (exact deadline to be determined during the Summer of 2014). Depending on the expiration date of your current grant, you may also need to submit a renewal proposal to cover the period between your current grant expiration and April 1, 2015.

Proposal and Application Requirements

Q14: Is a Letter of Intent (LOI) required?
A14: No. Letters of Intent are requested to organize and expedite the merit review process. Consequently, the submission of a LOI is strongly encouraged but not required.

Q15: When is the Letter of Intent due?
A15: 5 PM Eastern Time on July 15, 2013.

Q16: How do I submit my Letter of Intent (LOI)?
A16: The LOI should be submitted electronically through the DOE Office of Science Portfolio Analysis and Management System (PAMS) website (https://pamspublic.science.energy.gov/). The Principal Investigator and anyone submitting on behalf of the Principal Investigator must register for an account in PAMS before it will be possible to submit a letter of intent or a full proposal. Please carefully read the FOA (specifically Section IV, Subsection B) for details. It will tell you how to register with PAMS and how to submit your LOI. It is highly recommended that you register with PAMS a full week before you submit your LOI to avoid any delays.

Q17: Are pre-applications required?
A17: No.

Q18: What is the difference between a proposal submitted to the general SC solicitation and a proposal submitted to the HEP comparative review FOA?
A18: The technical content of either proposal should be essentially the same, if you are proposing the same scope of research. However there are important formatting differences for the HEP comparative review proposals, including hard page limits, separating the descriptions of research tasks by subprogram, and accompanying budget documents. Details can be found in the HEP comparative review FOA. Also see notes above in the proposal types section.

Q19: What is the definition of "senior investigator"?
A19: For the purposes of calculating the page limit, a senior investigator is considered to be an active tenured or tenure-track faculty member at the sponsoring institution. Research collaborators at other institutions are not included. Non-tenure-track faculty (e.g., research faculty) or senior research staff members with term appointments are not included *unless* they are the sole principal investigator on the proposal. However, the roles and responsibilities of senior research faculty and/or research staff as part of the proposal should be clearly spelled out in the research description in order for their activities to be considered during the comparative review process.

Q20: Are there limits on the length of the proposal?
A20: Yes. The total length of the research description(s) in the narrative section must <u>not</u> exceed 9 pages per senior investigator. Other parts of the submission (Cover Page, Cover Page Supplemental for Proposals with Multiple Research Areas or Thrusts, Project Summary/Abstract and appendices) do <u>not</u> count against this limit; see full text in Section IV of the Comparative Review FOA for complete details. Additional supporting material (i.e., Biographical Sketch, Publication Lists, etc.) should be put in appendices according to the format specified in Section IV of the FOA. Further, as noted in the format for Appendix 7 on "Other Attachments", do not include copies of previously presented or published research papers, technical notes, presentations at meetings or conferences, or reports written for respective experiments or collaborations. Material for the appendices should not be attached as a separate file. Note: any proposal that exceeds the page limit will <u>not</u> be reviewed and

therefore cannot be considered for funding.

Q21: In an application with multiple senior investigators, does the page limit apply to the narrative of each investigator or to the aggregate of all the narratives?
A21: The page limit will be applied to the whole proposal based on the number of senior investigators. For example, if an application contains 4 senior investigators, the page limit for the application narrative would be 36. One of the senior investigators may exceed their allotted 9 pages as long as the total page count does not exceed 36.

Q22: I am involved in two experiments. Is the page limit really 9 pages per senior investigator or 9 pages per senior investigator per experiment?
A22: The page limit refers to the total number of pages per senior investigator, irrespective of the number of activities being described.

Q23: I work on the CMS experiment and on the NOνA experiment. Do I have to split my 9 pages of research narrative into the Intensity and Energy Frontiers section of the proposal or can I have a single section describing all of my work?
A23: Because each of the six subprograms will be reviewed separately, senior investigators with efforts in more than one subprogram must split their narratives according to sub-program and place them in the appropriate section in the application. Please note that the 9-page limit per senior investigator still applies.

Q24: According to the instructions we are allowed seven appendices. My institution is involved in several different efforts (ATLAS, Theory, SuperK). Do we get seven appendices for each of these? Or do we break each appendix into sections for these different efforts?
A24: No, the total number of appendices per proposal should not exceed seven regardless of the number of efforts. Less than seven are allowed but no more. Further, the material contained in the appendices is listed in Section IV of the FOA and applicants must follow the format described there.

Q25: In the proposal, I'd like to attach explicit copies of previous publications or reports in order to provide reviewers additional information that would help support my research. Can this be included in the Appendices?
A25: No. The format for material contained in each section of the Appendix is listed in Section IV of the FOA. You should not include any copies of previously published research papers, technical notes, and/or reports written for respective experiments or collaborations in the Appendices. If you plan to add this material to the Project Narrative instead, this will count against the page limit that applies to the narrative of each senior investigator. Instead, we encourage you to cite the appropriate references in the narrative, and consequently, list these in Appendix 3 of the proposal.

Q26: The proposal needs to include a Project Summary/Abstract (Field 7 on the Form) which contains a summary of the proposed activity suitable for dissemination to the public. My grant is involved in several different efforts (ATLAS, Theory, SuperK). Do I submit a Project Summary/Abstract for each?

A26: No, only one Project Summary/Abstract per proposal. The Project Summary/Abstract should summarize all efforts.

Q27: In the proposal, what items should or should not be included for the Biographical Sketch described for Appendix I?

A27: The full content of items for the Biographical Sketch that the project director/principal investigator (PD/PI) and each senior/key person listed in Section A of the R&R Budget Form should provide is described in Section IV, Appendix I of the Comparative Review FOA. The information should include the individual's education and training, research and professional experience, list of up to 10 publications most closely related to the proposed projects, up to 5 synergistic activities related to the proposed projects, and a list of any potential conflicts of interests that can arise with the proposed projects. *However, any personal identification information (PII) such as social security number, date or place of birth, and/or any other sensitive information that a merit reviewer will not make use of should not be given in the appendix nor in any other section of the application.*

Q28: Are there limits on the length of the project period for the proposed research?

A28: No, but HEP research grants are typically awarded for a three-year period.

Q29: When are new proposals due?

A29: 11:59 PM Eastern Time on September 9, 2013.

Q30: When are new awards issued under this FOA expected to start?

A30: On or about May 1, 2014.

Q31: I have already submitted a research proposal to the general SC solicitation [DE-FOA-0000768]. How should I proceed?

A31: We strongly encourage you to withdraw your proposal and resubmit to the HEP comparative review FOA. New or renewal proposals submitted to the general SC solicitation will be reviewed following standard merit review criteria (see the *Review Process* section of this FAQ below); however, funding available to respond to proposals submitted to the general SC solicitation will be extremely limited.

Q32: I want to submit a collaborative (consortium) research proposal with my colleagues at other institutions. Is this allowed? If so, how do I do this?

A32: Yes. There are two options for submittal: (1) a single application from the lead institution, containing the entire proposal and budget, with collaborating institutions supported via subcontracts or purchase orders; or (2) multiple applications (one per participating institution) each requesting funding for that institution. In the latter case each application should have the same title and clearly indicate the linkages with the other consortium applications in the narrative. In either case the applications should clearly state institutional roles and responsibilities, discuss management and organization of the collaboration, and delineate each institution's budget. Final decisions on support for a collaborative (consortium) research proposal will depend on the scientific merit review process and other programmatic priorities and factors.

Q33: I submitted a grant application in a previous year that was only partially funded. Can I submit a proposal that will supplement that existing grant?
A33: Yes, but not through the HEP Comparative Review FOA. Applications submitted to and selected under the HEP Comparative Review FOA are stand-alone research grants. To request additional funding for an existing grant, supplemental applications must be submitted to the general SC solicitation (i.e., DE-FOA-0000768). For best consideration you should submit your supplemental application on or before the HEP Comparative Review deadline. We note however that funding available to respond to applications submitted to the general SC solicitation will be extremely limited.

Budget

Q34: Are there minimum or maximum limits on the budget that can be requested?
A34: No.

Q35: What is the typical size of an HEP research award?
A35: There is a wide range of awards from $10,000 to over $1,000,000 per year. Usually the size of the award scales roughly with the number of senior investigators on a grant. However, any scaling also depends on the scientific merit review process of the proposal and of the senior investigator(s) in the application.

Q36: What budget form(s) do I have to submit?
A36: You need to submit the standard grants.gov budget sheets for the *entire* proposal (for each budget year, plus a cumulative budget page) following the standard procedure described on the grants.gov website. *In addition*, DOE budget sheets *must* be included for the proposed activities described in *each* subprogram section of the application. These should be included according to the format specified in Section IV of the Comparative Review FOA.

Q37: Is cost-sharing required?
A37: No.

Q38: The HEP Comparative Review FOA says support and infrastructure provided by the sponsoring institution should be described in the proposal. Do I need a separate budget form and justification for this?
A38: No. The support and infrastructure provided by the sponsoring institution (as appropriate) should be separately described in the research narrative but does NOT have a separate budget. Infrastructure and support activities should be reported on budget sheets as direct and/or indirect costs (whichever is customary at your institution) in each subprogram section of the proposal as noted above.

Q39: My research requires purchase of capital equipment for project R&D, fabrication, and/or operational related activities. Will such requests be supported under the HEP Comparative Review FOA?
A39: Requests to support equipment for project R&D, and fabrication and experiment operations efforts will not be supported within the respective experimental frontier research

areas in the HEP program. Such requests may be submitted to the general SC solicitation (i.e., DE-FOA-0000768).

Q40: My research requires staffing research scientists or engineers for project R&D, fabrication, and/or experiment operational related activities. Will these be supported under the Comparative Review FOA?
A40: Requests to support engineers and/or research scientists dedicated full-time to operational and/or project related activities for individual experiments will not be supported by the respective experimental frontier research areas in the HEP program. However, if such personnel are conducting physics research related activities, requests to support such efforts, appropriately scaled to the fraction of time on these activities, can be included. Specifically, support for engineering and other technical efforts required for particle detector R&D is included in the detector R&D subprogram. Final support will be based on the comparative review process (see also the *Review Process* section of this FAQ below and Section V of the FOA).

Review Process

Q41: What are the criteria for acceptance of proposals?
A41: All proposals must be responsive to one or more of the scientific research sub-programs detailed in Section I of the Comparative Review FOA. Proposals judged to be non-responsive will be declined.

Q42: Are there additional requirements?
A42: Additional requirements for proposals are detailed under New Application Requirements in the FOA.

Q43: I am intending to submit a proposal to the HEP Theory research program for the Comparative Review. What is the scope of research topics that are supported under this program?
A43: The supported research scope covers a wide range of topics. These topics include, but are not limited to: phenomenological and theoretical studies that support experimental HEP research at the Energy, Cosmic, and Intensity Frontiers, both in understanding the data and in finding new directions for experimental exploration; development of analytical and numerical computational techniques for these studies; and construction and exploration of theoretical frameworks for understanding fundamental particles and forces at the deepest level possible. The program is centered across several research areas: 1) Standard model phenomenology, which involves high precision calculations of standard model predictions such as Monte Carlo simulation, higher order calculations of particle production rates and distributions, radiative corrections, and extraction of parton distribution functions; 2) Beyond the standard model phenomenology, which studies the experimental consequences of extensions of the standard model as well as the search for new particles given their signatures in collider and astrophysical sources, and in rare processes; 3) Cosmology and astroparticle theory, which studies the early universe, inflation scenarios, large scale structure formation, particle models for dark matter and prospects for its detection, dark energy and its theoretical consequences,

quantum gravity and black holes; 4) Lattice field theory, which involves the study and simulation of lattice models of quantum field theory and its phenomenology; 5) theoretical and phenomenological studies of neutrino physics, and 6) formal and mathematical aspects of quantum field theory, including string theory.

Q44: What are the merit review criteria for the HEP comparative review FOA [DE-FOA-0000948]?

A44: The merit review criteria are the same as in the standard Office of Science Financial Assistance Program Rules detailed in 10 CFR 605.10. These are also listed in Section V, Subsection A of the Comparative Review FOA.

Q45: How will the merit reviews be conducted?

A45: All proposals judged to be responsive to the FOA will be submitted to external experts for peer review. For the HEP comparative reviews, the six different subprograms outlined in the FOA will be reviewed by separate mail and/or panel reviews that will compare the relative strengths of the proposals in that subprogram. Reviewers will typically evaluate multiple proposals and will be asked to provide a written evaluation of these proposals. All proposals will be evaluated by at least three experts. For subprograms conducting panel reviews, the panel will consider all proposals in that subprogram and individual panel members will rank order these proposals in terms of overall merit.

Q46: How will the reviews be used by the DOE?

A46: DOE program managers will consider the written evaluations, panel deliberations, as well as the individual rankings of proposals as input to making final decisions on which proposals will be funded, and if so, at what level the support will be. Additional considerations such as programmatic priority, overall program balance and continuity may also factor into DOE decisions. Written reviewer evaluations will be returned to the applicant after redaction of information that could compromise reviewer confidentiality.

Q47: How can I improve my chances of receiving funding?

A47: Funding decisions are made on the basis of scientific peer review, alignment with HEP programmatic priorities, and the technical judgment and expertise of program managers. If you have peer reviews from previous proposals, you are strongly encouraged to read those reviews carefully and to address any deficiencies identified by the reviewers. A critical assessment of draft versions of your current proposal by colleagues or collaborators may also be helpful in improving your proposal.