Frequently Asked Questions (FAQs) to the DOE Comparative Review in HEP

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Note: Both the "FY 2020 Research Opportunities in High Energy Physics" [Comparative Review] Funding Opportunity Announcement [DE-FOA-0002172] and the questions and answers below use technical terms and acronyms specific to grant awards and the overall review process. Please refer to the 'Glossary' contained in Section IX of the Funding Opportunity Announcement for complete definitions of these terms.

Registrations and Eligibility

- Q1: In order to submit Letters of Intent (LOI) and/or Final Applications in response to the HEP comparative review Funding Opportunity Announcement (FOA), what particular systems must applicants register in?
- A1: The complete list of systems that applicants are required to register with are listed in the Section IV Subsection I of the FOA (*i.e.*, see pages 40-45 of the FOA). These include:
 - System for Award Management (SAM);
 - Grants.gov;
 - DOE's Portfolio Analysis and Management System (PAMS);
 - Obtaining a DUNS number: a unique nine-digit identification number for applicants;
 - Obtaining a Taxpayer Identification Number (TIN);
 - FedConnect;
 - Federal Funding Accountability and Transparency Act Subaward Reporting System.

- As indicated in the FOA, registering in certain systems may take several weeks to process and complete. Therefore, the DOE Office of Science (SC) encourages applicants to register in all systems as soon as possible and well before the relevant deadlines.
- Q2: As indicated in the HEP comparative review FOA, submitting a LOI is not required. Therefore, I did not submit the LOI, but do I still need to register in PAMS?
- A2: Yes. Since several of our systems tend to be linked with one another for processing the full application and since final award decisions by DOE are conducted through PAMS, it is highly encouraged to register in *all* systems that are specified in the FOA regardless of whether or not a LOI was submitted.
- Q3: Who is eligible to apply to the HEP comparative review program?
- A3: The eligibility requirements are detailed in Section III of the FOA.
- Q4: I have accepted a position as a tenure-track or tenured faculty member at a regionally-accredited domestic institution of higher education, but I have not yet begun the job. Am I eligible to be a senior investigator in the HEP comparative review program?
- A4: In order to be eligible as a senior investigator for the FY 2020 comparative review in HEP, you must be employed in the position by the application due date, January 22, 2020. Further, in order to assist DOE during the processing of the submitted application, DOE requests the institution provide a brief letter verifying the position, title, and effective date of employment in Appendix 9 of the application.
- Q5: How do I know whether my institution is regionally-accredited?
- A5: The U.S. Department of Education maintains a list of the current regional accrediting agencies at: https://ope.ed.gov/accreditation/agencies.aspx.

Proposal Types

- Q6: What kinds of proposals are you looking for?
- A6: The DOE Office of High Energy Physics (HEP) is soliciting proposals for research in HEP for its comparative review FOA. All applications must address at least one of the six HEP research subprograms described in the FOA. Proposals that are not consistent with the scope of the research described in the FOA may be administratively declined without review.
- Q7: 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.?
- A7: All such applications must be submitted to the general SC open solicitation <u>DE-FOA-0002181</u>]. The HEP comparative review FOA [<u>DE-FOA-0002172</u>] is for direct support of HEP research activities.

- Q8: Can I submit a research proposal to the general SC open solicitation instead of the HEP comparative review FOA?
- A8: New or renewal proposals submitted to the general SC solicitation (*i.e.*, DE-FOA-0002181, available at the URL: http://science.osti.gov/hep/funding-opportunities/) will be reviewed following standard merit review criteria (see Section V of the general SC solicitation); however, funding available to respond to proposals submitted to the general SC solicitation will be extremely limited.
- Q9: I have an existing research grant funded through DOE and I will be submitting a proposal to FY 2020 HEP comparative review FOA. Should the proposal be submitted as a "new" or "renewal" application?
- A9: The type of application to submit is fully described in Section II Subsection G of the comparative review FOA. In determining whether to submit a "new" vs. "renewal" application, the proposal must satisfy the different criteria listed there and must correspondingly be marked as such on the SF-424 Research & Related (R&R) cover page accompanying the application. For cases with multiple co-investigators see also Q18: below. If you still have questions about the type of application to submit, please email sc.hepfoa@science.doe.gov.
- Q10: I am planning to submit a "renewal" application to the FY 2020 HEP comparative review FOA. Am I required to complete and submit 'Renewal Proposal Products' through the Office of Science PAMS website?
- A10: Yes. Please refer to Section II Subsection G of the FOA for further information as well as Section 9.2 of the PAMS User Guide, which is available at the URL:

 https://pamspublic.science.energy.gov/WebPAMSEPSExternal/CustomInterface/Common/ExternalUserGuide.pdf
 - Applicants completing this section in PAMS must enter each product created during the previous project period of the award. Example products include: publications, intellectual property, technologies or techniques, and other products such as database or software publically available. Accessibility to this section in PAMS will be available to the applicant after the application has been submitted to DOE; all information must be entered within five calendar days after the submission. The submitted product list will be sent to reviewers to be considered as part of the merit review of the application. The application will not be considered complete and cannot be sent for review until the renewal proposal product list has been submitted.
- Q11: I am a collaborator on a large HEP experiment, and therefore, an author with several other international collaborators on many publications by the experiment. For the Renewal Proposal Products section in PAMS on 'publications', should I list all the publications that the experiment produced during my grant's previous project period or only the ones where I was the primary author?
- A11: For the 'publication' section in the Renewal Proposal Products in PAMS, Principal Investigators collaborating on large HEP experiments should list the publications where they were the

- primary author (*i.e.*, one of the main contributors to the paper). Of course, PIs are free to enter all the publications that the collaboration published during the previous project period, but for the HEP comparative review process, DOE and merit reviewers are mainly interested in the ones where the PI was a primary author.
- Q12: During the comparative review process, are there any differences in regards to merit reviews for proposals that are "renewals" versus proposals that are "new"?
- A12: As far as the merit review process is concerned, there are no differences. Renewal applications compete for funds with all other peer-reviewed applications "new" or "renewal" and must be developed as fully as though the applicant is applying for the first time.

New Faculty Members and Those without Current HEP Grants

- Q13: I am a tenure-track/tenured faculty member at my institution and want to apply for a HEP research grant. What are the possible ways for me to apply?
- A13: There are several possibilities, depending on the specific situation:
 - If you want to apply for your own standalone grant, you may submit an individual proposal to the HEP comparative review FOA.
 - If your institution currently has a HEP grant that you would like to join, but it is not up for comparative review this year, you may apply to the HEP comparative review FOA as a standalone proposal 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 may 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 <u>Early Career Research Program</u>; all eligible junior faculty members are strongly encouraged to apply to this program. See additional information below.
- Q14: 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 Early Career Research program?
- A14: Yes, you can submit the same proposal to two different Office of Science solicitations at the same time, but if both applications are successful in their respective merit review processes, only one can be funded. You should indicate in any application if you have applied to two different FOAs. Further, any proposals submitted to two different FOAs must each comply with the guidelines (*e.g.*, page limits, page formatting, appendix material) that are specified in each FOA.
- Q15: I will be a new assistant professor, starting my first faculty position on or before January 22, 2020. Can I apply to the FY 2020 HEP comparative review FOA?
- A15: 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.
- Q16: I applied to a previous annual call for HEP comparative review proposals but my proposal was declined. Can I submit the same proposal to this funding opportunity?
- A16: You may apply but note that applicants that were not previously selected for an award, as a result of merit reviews, are requested to address any deficiencies identified by the review process, including taking into consideration any reviewer evaluations or concerns from prior reviews. As a result, applicants should make necessary modifications to the proposed research narrative or scope. A proposal previously declined on merit may be resubmitted to this FOA but only after it has undergone substantial revision. A proposal submitted to this FOA that has not clearly taken into account major concerns from prior DOE reviews may be declined without review and will not be considered for funding.

For Principal Investigators (PIs) with Existing HEP Grants

- Q17: I have an existing HEP grant that was funded under a previous FOA (*i.e.*, FY 2019 or earlier), and the award expires before September 30, 2020. If I want to renew that grant, how do I apply?
- A17: If your grant was funded through a previous FOA and expires before September 30, 2020, and you want to renew the grant, you are strongly encouraged to submit a proposal under the FY 2020 HEP comparative review FOA [DE-FOA-0002172]. This holds whether your current application corresponds to an extension of the previously-funded research scope, or to a change of research scope. Note that in such cases, please refer to Q9: above and Section II Subsection G of the comparative review FOA to determine whether the proposal you plan to submit should be formally designated as a "new" vs. "renewal" application.
- Q18: I have an existing HEP grant and I plan to submit an application to the FY 2020 HEP comparative review process. However, the grant will now have changes to the investigator(s) listed on the existing grant. Therefore, should the proposal be submitted as a "new" or "renewal" application?
- A18: Changes in the investigator(s) to an existing grant can result in either a change in the leadership of the existing grant or in a change to the general scope of research efforts of the existing group. In addition to what is discussed in Section II Subsection G of the FOA, the following guidelines should be used to help determine the type of application to submit:
 - If there are any changes to the *Lead*-Principal Investigator identified for the existing grant, then the proposal must be submitted as a "new" application.
 - If there are changes to a *majority* of co-Principal Investigators of the existing grant, then this generally results in a significant change in the scope of the research efforts funded through the existing grant. Hence, the proposal must be submitted as a "new" application.
 - If there is a change at the level of a *single* co-Principal Investigator of the existing grant, then this generally does not significantly change the scope of the research efforts funded

- through the existing grant. Hence, if there is no significant change in research scope, then the proposal may be submitted as a "renewal" application.
- If the existing grant has multiple co-investigators and some or all of the co-PIs wish to submit separate proposals in this grant cycle, there should be *only one* renewal application (the one that has the same Lead PI as the existing grant) and any other applications should be designated as "new" applications and marked as such on the SF-424 R&R form.
- If multiple PIs have separate existing grants and wish to submit a single unified application in this grant cycle, this group proposal should be submitted as a *single renewal application* (formally "renewing" the grant of the new Lead PI).

Q19: My current grant expires after April 1, 2020 but before September 30, 2020. Should I submit a proposal to this FOA or a renewal proposal to the general SC solicitation?

A19: We strongly encourage you to submit a renewal proposal to the FY 2020 HEP comparative review FOA [DE-FOA-0002172]. If you are at an institution with another existing HEP grant renewing in FY 2020 you may want to consider submitting a joint (multi-PI) proposal from your institution, see also considerations in Q18: above. "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.

Q20: If I have an existing HEP grant that expires after September 30, 2020, do I need to apply to the comparative review FOA?

A20: Not this year. If your grant expires in FY 2021 (*i.e.*, Oct. 1, 2020 – Sept. 30, 2021) you are urged to apply next year, under the HEP comparative review FOA for FY 2021, by the deadline established next year for that particular FOA (exact deadline to be determined during the summer of 2020). Depending on the expiration date of your current grant, you may also need to submit a renewal proposal or a no-cost extension to cover the period between your current grant expiration and the nominal start date for most FY 2021 comparative review grants (typically April 1, 2021).

Proposal and Application Requirements

Q21: Is a Letter of Intent (LOI) required?

A21: 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.

022: When is the Letter of Intent due?

A22: 5 PM Eastern Time on December 18, 2019.

Q23: How do I submit my Letter of Intent?

- A23: The Letter of Intent must be submitted electronically through the DOE Office of Science Portfolio Analysis and Management System (PAMS) website (via URL: https://pamspublic.science.energy.gov/). The Principal Investigator and/or 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, including instructions on how to register with PAMS and procedures on submitting your LOI. It is highly recommended that you register with PAMS well in advance of submitting your LOI to avoid any delays.
- Q24: I have accepted a position as a tenure-track or tenured faculty member at a regionally-accredited domestic institution of higher education, but I will not begin the job until after the Letter of Intent submission deadline of December 18, 2019. Can I still submit a Letter of Intent in response to the FY 2020 HEP comparative review FOA?
- A24: Yes. However, in order for your final application to be eligible for the FY 2020 comparative review process, you must be employed in the position by the application due date, January 22, 2020. The application must also comply with all other requirements and guidelines described in the FOA. Further, in order to assist DOE during the processing of the submitted application, DOE requests the institution provide a brief letter verifying the position, title, and effective date of employment in Appendix 9 of the application. See also Q4: above.
- Q25: Are pre-applications required?
- A25: No.
- Q26: I was planning to submit my proposal to the HEP comparative review FOA [DE-FOA-0002172] but the proposal was incorrectly submitted to the general SC solicitation [DE-FOA-0002181]. Can the proposal still be submitted to the correct FOA?
- A26: If the application is received by DOE before the given deadline of the respective FOA number, it will be processed according to the guidelines specified in the FOA. However, if the application is received after the deadline of the comparative review FOA, it will not be reviewed or considered for an award under that FOA. It is the responsibility of the Principal Investigator at the institution and its Sponsored Research/Program Office to begin the submission process of an application in sufficient time to accommodate reasonably foreseeable incidents and contingencies such as these.
- Q27: What is the difference between a proposal submitted to the general SC solicitation and a proposal submitted to the HEP comparative review FOA?
- A27: 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 proposals to the HEP comparative review FOA, 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 the notes above in the *Proposal*

Types section.

Q28: What is the definition of "senior investigator"?

A28: 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 all senior research faculty and/or research staff included as part of the proposal should be clearly spelled out in order for their activities to be considered during the comparative review process. For Research Scientist(s) listed in the application, see also Q37: and Q40: below as well as Section IV, the subsection on Appendix 2 in the FOA for guidelines in preparing respective supporting narratives.

Q29: What mailing address should I specify on my application?

A29: Please list your professional or institutional work mailing address (not your home address).

Q30: Are there limits on the length of the proposal?

A30: Yes. The total length of the research description(s) in the narrative section must not exceed 9 pages per senior investigator. Other parts of the submission (Cover Page, Cover Page Supplemental for Proposals with Multiple Subprograms or Thrusts, Project Summary/Abstract and appendices) do not 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. Moreover, as noted in the format for Appendix 9 on "Other Attachment", 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 be declined without review, and therefore, cannot be considered for funding.

Q31: 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?

A31: 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.

Q32: I am involved in two different experiments. Is the page limit really 9 pages per senior investigator or 9 pages per senior investigator per experiment?

A32: The page limit refers to the total number of pages per senior investigator, irrespective of the number of activities being described.

- Q33: I work on the CMS experiment and on the DUNE experiment. Do I have to split my 9 pages of research narrative into the Energy and Intensity Frontiers section of the proposal or can I have a single section describing all of my work?
- A33: Because each of the six HEP subprograms will be reviewed separately, senior investigators with efforts in more than one subprogram must split their narratives according to subprogram and place them in the appropriate section of the application. Please note that the 9-page limit per senior investigator still applies.
- Q34: According to the instructions we are allowed nine appendices. My institution is involved in several different efforts (e.g., ATLAS, Theory, LSST). Do we get nine appendices for each of these? Or do we break each appendix into sections for the different efforts?
- A34: The total number of appendices per proposal should not exceed nine regardless of the number of efforts. Fewer than nine 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 and guidelines described there.
- Q35: 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?
- A35: 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 project narrative, and consequently, list these in Appendix 4 of the application.
- Q36: The proposal needs to include a Project Summary/Abstract (Field 7 on the SF-424 R&R form) which contains a summary of the proposed activity suitable for dissemination to the public. My research group is involved in several different efforts (*e.g.,* CMS, Theory, LSST). Do we submit a Project Summary/Abstract for each?
- A36: No, only one Project Summary/Abstract must be submitted per proposal. The Project Summary/Abstract should summarize all efforts.
- Q37: In the proposal that I plan to submit to the FY 2020 HEP comparative review FOA, request for support of Research Scientist(s) presently in the group will be made. Is there a mechanism to describe the Research Scientist's efforts in the application?
- A37: Yes. The research efforts of any Research Scientist listed in the application can be included in the 9-page per senior investigator Project Narrative when describing the overall research activities and plans. If so, this will count towards the 9-page per senior investigator page limit of the Project Narrative. Further, we have reserved Appendix 2 strictly for *named* Research Scientist(s) to provide any supporting narrative. Such a narrative in this section of the

appendix must not exceed 2 pages per Research Scientist and should include brief background information as well as a description of the roles, responsibilities, and scope of research efforts to be conducted by the scientist. This scope should support the research activities described in the Project Narrative of the application. When preparing this appendix narrative, the guidelines specified in Section IV, the subsection on Appendix 2 of the FOA must be followed.

Q38: In the proposal, what items should or should not be included for the Biographical Sketch for Project Director/Principal Investigator described for Appendix 1?

A38: 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, subsection for Appendix 1 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 personally identifiable information (PII) such as social security number, date or place of birth, citizenship status, home address, 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 part of the application.

Q39: Should the Biographical Sketch list potential reviewers who might have conflicts of interest or bias toward the proposal?

A39: Yes, see the subsection for Appendix 1 under Section IV, Subsection D of the comparative review FOA. You should include a separate section entitled "Identification of Potential Conflicts of Interest or Bias in Selection of Reviewers" that will not count against the page limit for Appendix 1.

Q40: In the proposal, what items should or should not be included for the Biographical Sketch for Research Scientist(s) described for Appendix 2?

A40: The full content of items for the one-page Biographical Sketch that each Research Scientist(s) named in the R&R Budget Form should provide is described in Section IV, subsection for Appendix 2 of the comparative review FOA. The information should include the Research Scientist's education and training, research and professional experience, list of up to 5 publications most closely related to the proposed projects, and the names and current organizational affiliation of any graduate students and postdoctoral associates that the Research Scientist has helped mentor during the last 5 years while at the institution in order to support the research activities. However, any personally identifiable information (PII) such as social security number, date or place of birth, citizenship status, home address, 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 part of the application.

Q41: Are there limits on the length of the project period for the proposed research?

A41: No, but HEP research grants are typically awarded for a three-year period.

Q42: When are final applications (i.e., proposals) due?

- A42: 5 PM Eastern Time on January 22, 2020.
- Q43: When are new awards issued under this FOA expected to start?
- A43: Awards are anticipated to be made during the spring of 2020 with project period start dates on or about April 1, May 1, or June 1, 2020.
- Q44: I have already submitted a research proposal to the general SC solicitation [DE-FOA-0002181] but am interested to submit to the FY 2020 HEP comparative review FOA [DE-FOA-0002172]. How should I proceed?
- A44: We strongly encourage you to withdraw your proposal from the general SC solicitation and resubmit to the HEP comparative review FOA. If so, please make sure your proposal is compliant with all requirements and guidelines of 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.
- Q45: I want to submit a collaborative research proposal with my colleagues at other institutions. Is this allowed? If so, how do I do this?
- A45: 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 (this is referred to in the FOA as an "unincorporated consortium"); or (2) multiple applications (typically one per participating institution), each requesting funding for that institution (referred to in the FOA as a "collaborative proposal"). 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 either kind of application(s) will depend on the scientific merit review process and other programmatic priorities and factors. DOE may elect to fund some, none or all elements of the proposed collaborative research scope at its discretion.
- Q46: 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?
- A46: Yes, but <u>not</u> through the HEP comparative review FOA. Applications submitted to and selected under the HEP comparative review FOA are standalone research grants. To request additional funding for an existing grant, supplemental applications must be submitted to the general SC solicitation (*i.e.*, <u>DE-FOA-0002181</u>). 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

- Q47: I am applying to the FY 2020 HEP comparative review FOA. Do I need to include a Data Management Plan (DMP) in the application?
- A47: Yes. For complete details, see Section IV, the subsection on Appendix 8 of the HEP comparative review FOA.
- Q48: Are there any page limits to a DMP required in Appendix 8 of my application?
- A48: Yes. The appendix should not exceed 2 pages per HEP research thrust (*e.g.*, ATLAS, CMS, LSST, DUNE, phenomenology, lattice gauge theory, etc.) where support is being requested in the application. Any particular HEP research thrust in an application, where support is being requested, that does not provide a DMP or does not comply with the guidelines given in Section IV, the subsection on Appendix 8 of the FOA, will be declined without review, and therefore, that research thrust cannot be considered for funding.
- Q49: I forgot to include a DMP in my proposal and the deadline has passed. Will DOE accept it if I send it by email after the proposal deadline?
- A49: No.
- Q50: Under "Current and Pending Support", should I list all sources of funding, including my start-up, or just federally funded support
- A50: Section IV.D.2 subsection on Appendix 3 of the HEP comparative review FOA requests that you disclose all forms of support. In particular, DOE must know about Federally-funded sources as there are certain restrictions against supporting the same scope of work from two or more such sources. Reporting other non-Federally-funded sources is optional; we request it because the information helps reviewers determine if you are to have adequate resources to perform the proposed research.
- Q51: Are letters of recommendation limited to a total or three for the entire proposal or three per research thrust?
- A51: Each separate HEP research thrust (*e.g.*, ATLAS, CMS, LSST, DUNE, phenomenology, lattice gauge theory, etc.) may include up to three letters of recommendation in Appendix 9 (Other Attachments).

Budget

- Q52: Are there minimum or maximum limits on the budget that can be requested?
- A52: No.
- Q53: What is the typical size of an HEP research award?
- A53: There is a wide range of awards typically from \$20,000 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 of the proposal and the

senior investigator(s) in the application and/or Program Policy Factors specified in Section V of the HEP comparative review FOA.

Q54: What budget form(s) do I have to submit?

- A54: 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.
- Q55: I am applying for support across two or more HEP research subprogram areas. Section IV, the subsection on Appendix 7 indicates that I must include additional budget material as part of Appendix 7 of the application. However, the application already contains the material earlier as part of the full submission process. Is Appendix 7 still required?
- A55: Yes, we request for completeness that you include Appendix 7 by following the details given in Section IV of the FOA.
- Q56: Is cost-sharing required?
- A56: No.
- Q57: The HEP comparative review FOA indicates 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?
- A57: 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.
- Q58: 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?
- A58: Requests to support equipment for project R&D, and/or 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-0002181) with appropriate justifications. Requests to support general-use equipment will be considered under the HEP comparative review FOA.
- Q59: 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 HEP comparative review FOA?

A59: 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

- Q60: What are the criteria for acceptance of proposals?
- A60: All proposals must be responsive to one or more of the scientific research subprograms detailed in Section I of the FOA and to the provisions detailed in Section V of the FOA. Proposals determined to be non-responsive will be declined.
- **Q61:** Are there additional requirements?
- A61: Provisions for any additional requirement in the proposal are given in the FOA. Applicants are strongly encouraged to carefully review the section titled 'Important Updates and Reminders' on pages 1-3 of the FOA.
- Q62: What are the review criteria for the HEP comparative review FOA?
- A62: Both the Initial Review and the Merit Review criteria are given in Section V of the HEP comparative review FOA.
- Q63: How will the merit reviews be conducted?
- A63: All proposals determined to be responsive to the FOA will be submitted to external experts for merit (peer) review. For the HEP comparative review, the six different subprograms outlined in the FOA will each organize separate mail and panel reviews that will compare the relative strengths of the proposals in that subprogram. For each subprogram's review, reviewers will consider those proposals in that subprogram that passed the Initial Review Criteria, as specified in Section V of the FOA. Reviewers will typically evaluate multiple proposals and will be asked to provide a written evaluation for each of these. All proposals will be evaluated by at least three experts. Individual panel members will be requested to rank order these proposals in terms of overall merit and impact.
- Q64: How will the reviews be used by the DOE?
- A64: DOE program managers will consider the written evaluations, panel deliberations, as well as the individual rankings of proposals or senior investigators as input to making final decisions

on which proposal or investigator will be recommended for funding, and if so, at what level the support will be. Additional considerations such as programmatic priority, alignment with the 2014 Particle Physics Project Prioritization Panel (P5) strategic plan for HEP, overall program balance and continuity, and other program policy factors may also be considered into DOE decisions. Written reviewer evaluations will be returned to the applicant after redaction of information that could compromise reviewer confidentiality.

Q65: How can I improve my chances of receiving funding?

A65: Selections are made on the basis of scientific merit (peer) review, alignment with HEP programmatic priorities, program policy factors, the expertise and technical decision of program managers, and the availability of appropriated funds. 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.

HEP Program or System Questions and Agency Contacts

- Q66: I am planning to submit an application to the FY 2020 HEP comparative review FOA, but I have a question specific to the research subprogram that I am applying within. Who should I contact regarding such inquiries?
- A66: If you have further questions regarding specific research program areas, please direct inquiries to the respective DOE technical contact listed in Section I of the FOA. For questions about program rules and/or program review process, please email sc.hepfoa@science.doe.gov and reference the HEP comparative review FOA number [DE-FOA-0002172].
- Q67: I am having difficulties accessing Grants.gov or need further assistance with the system. Who should I contact?
- A67: For assistance with Grants.gov, please contact Grants.gov at 1-800-518-4726 or email support@grants.gov. DOE cannot answer such inquiries. In your correspondence with Grants.gov, please request them to open a service/help 'ticket' for tracking.
- Q68: I am having difficulties accessing PAMS or need further assistance with the system. Who should I contact?

A68: For assistance with PAMS, you may consider any of these options:

- Refer to the "PAMS User Guide" on its website: https://pamspublic.science.energy.gov/;
- Contact the PAMS Help Desk at 1-855-818-1846 (toll-free) or 1-301-903-9610; or email sc.pams-helpdesk@science.doe.gov. Please consult Section VII of the FOA for the PAMS Help Desk hours of operation. All inquiries should reference this FOA number [DE-FOA-0002172], and in your correspondence, please request the Help Desk to open a

service/help 'ticket' for tracking.