FAQs about FastLane, the NSF site for submitting proposals, can be found at https://www.fastlane.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane_Help/fastlane_help.htm#fastlane_faqs_introduction.htm.

PROGRAM DESCRIPTION

1. The solicitation's Figure 1, Notional NHERI Construct, does not show interaction lines among all components, e.g., interactions among the Experimental Facility (EF) Awardees. Can proposed Governance interactions include additional interactions not shown in this Figure?

2. Can I serve as the Principal Investigator (PI) if I have no experience and track record in wind and/or earthquake engineering?

3. The solicitation lists qualifications for the all PIs in Section II.C and additional qualifications for the PI of each proposed component in Sections II.D, II.G. (a) Does the PI need to be both a distinguished earthquake engineering or wind engineering researcher and meet the additional PI qualifications listed for the proposed Network Coordination Office (NCO), Cyberinfrastructure (CI), Computational Modeling and Simulation Center (SimCenter), or Experimental Facility (EF) component in Sections II.D, II.G? (b) If the PI's qualifications do not meet all these requirements, can there be co-PIs or co-Directors who bring the expertise missing in the PI's qualifications?

4. Will the solicitation support awards that can address coastal surge and wave processes related to windstorms?

5. What are the key components of a Science Plan? Where can I find examples of a Science Plan for the NCO, CI, SimCenter, and EF components?

6. What is the difference between the software tools on the Software Service Delivery Platform to be provided by the CI Awardee vs. those to be provided by the SimCenter Awardee?

7. Can researchers and educators write proposals to NSF to conduct research that use SimCenter resources?

8. Can SimCenter Awardee software tools be developed by subawardees not identified in the original proposal?

9. What is a requirements traceability matrix?

10. For the SimCenter, is it acceptable to develop open source software that can only run on a proprietary platform?

11. My university has both earthquake engineering and wind engineering experimental equipment. Can I submit an EF proposal for a combined earthquake and wind engineering experimental facility?

12. My institution has various earthquake engineering or wind engineering experimental equipment that could be combined to form an EF proposal. However, some of the equipment may not be allowed per Section II.G of the solicitation. Can NSF tell me prior to proposal submission if any of my equipment is not allowed?

13. The solicitation, Section II.G, states that an EF for long-term instrumented structures and/or field sites will not be supported. However, my institution has a field structure that is permanently instrumented to capture hazard loading data that can be useful for future research studies. Can this structure be supported as part of an EF?

14. The solicitation, Section II.G, states that "a facility with the primary focus and capability for development of advanced experimental testing algorithms and techniques" will be returned without review. However, a proposed EF with major wind engineering or earthquake engineering experimental resources will need to periodically develop and upgrade its testing algorithms and techniques, e.g., test protocols, data acquisition, and data analysis software, to stay current and ensure high quality testing. Is this scope of work allowed as part of an EF proposal?

15. For an EF, on an annual basis, what percentage of time must be allocated for NSF-supported research and education
awards to demonstrate" significant annual facility resource use by NSF-supported research and education awards," i.e., is there a minimum specified amount of time annually a proposed EF must be made available to accommodate NSF-supported users? My proposed facility is already significantly committed to other Federal and state agencies; and industry testing activities, but I can make it available during short periods annually for NSF-supported users?

16. For an EF, the solicitation requires "fully functional and calibrated resources for earthquake or wind engineering." Can my proposed EF have a few experimental resources, including a new major experimental component, which will be developed and made operational during the first year or second year?

17. For an EF proposal, several items of equipment or instrumentation will not be fully operational on the start date of the award; they are integral to the operations of the facility but just need minor repair. I do not have the funds to repair them before the start date of the NHERI award. Can I request year-one upgrades to make my facility fully operational and EH&S compliant or to repair/replace this damaged equipment?

18. For an EF, what type of equipment qualifies as minor equipment for potential year-one upgrades?

19. For an EF, will I receive NSF support for all the year-one upgrades I request in my proposal?

20. For the post-disaster, rapid response research (RAPID) Facility, who is responsible for curating and archiving the collected field data?

21. Is the NCO or are the EF Awardees responsible for developing the NCO's Facility Scheduling Protocol? Are there examples of Facility Scheduling Protocols?

22. Why does the NCO need a Software Development and Lifecycle Management Plan?

23. What is the role of the NCO in running the Research Experiences for Undergraduates (REU) site program and what is the role of the other NHERI awardees (CI, SimCenter, and EF)?

24. What is the NHERI Summer Institute and are there examples of Summer Institutes?

25. The solicitation requires a Software Development and Lifecycle Management Plan for all Awardees. If the proposed component will need to acquire commercial software, is this allowable, and does this software need to be follow the Software Development and Lifecycle Management Plan?

26. Can I submit a proposal to use support under a NHERI experimental facility (EF) award to develop a new testing laboratory at my institution that is not a RAPID Facility?

27. Please clarify the role of the RAPID Facility in supporting researchers in the field.

28. For the cyberinfrastructure (CI) component, what is the intent and scientific basis for the dual requirement that the PI should be a distinguished earthquake engineering or wind engineering researcher per Section II.C of the solicitation and have prior accomplishments in cyberinfrastructure design, development, operations, and management for research communities per Section II.E of the solicitation?

ELIGIBILITY

29. Can an individual serving as PI or co-PI on one proposal be named as Senior Personnel (Faculty and other Senior Associates) in another proposal?

30. If an academic institution is the lead on two proposals, is there a limit on the number of proposals that the academic institution can participate in as the non-lead institution?

31. Can an individual who is named as Senior Personnel in one proposal (not PI or co-PI) participate in other proposals as Senior Personnel (not PI or co-PI)?

32. Must all co-PIs be from academic institutions and be U.S. citizens or permanent residents?

33. Can individuals from non-profit, non-academic organizations, such as professional societies, be supported on an award?

34. Can NSF help me identify potential proposal partners or identify proposers who will lead a proposal that may be seeking additional project partners?

35. Can an EF proposal include national and international partners for value-added strategic partnerships that bring additional unique experimental resources and capabilities beyond that at the lead institution and describe these additional resources in the proposal section on Facilities, Equipment and Other Resources?

36. Can proposals include project participants who are consultants?

37. I plan to submit a proposal from my academic institution as the PI or co-PI. I also have been asked by another academic institution to participate as an unfunded collaborator in that institution's proposal and provide a letter of collaboration. Will my letter of collaboration included in the other proposal make my own proposal ineligible?

38. Section II.G of the solicitation considers a RAPID Facility as an Experimental Facility. Can an individual participate as a co-PI supported in an Experimental Facility (large-scale testing equipment laboratory) proposal and also as Senior Personnel supported in a RAPID Facility proposal?

LETTERS OF INTENT (LOI)

39. The solicitation states for the LOI: "A Minimum of 0 and Maximum of 4 Other Senior Project Personnel are allowed." Does this mean that a full proposal can only include 1 PI, 4 co-PIs, and 4 Other Senior Personnel?

40. What can be included in the Other Comments section of the LOI?
41. Why are there two "Additional Project Personnel (name, organizational affiliation) is required when submitting Letters of Intent" listings under Letter of Intent?

42. What information should be included under "Other Comments?"

43. I am planning to serve as PI on a proposal. Can NSF tell me the names of the other PI(s) from my academic institution who have submitted Letters of Intent?

44. Can NSF provide feedback on the proposed plans described in my Letter of Intent submission?

FULL PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

45. Is the number of co-PIs limited to four?

46. NHERI Awardees are to work/collaborate together. Do I need to list other NHERI proposers in the Project Description, Summary Tables, as collaborators?

47. Can a proposal include an Advisory Board, Advisory Committee, Practice Committee, or similar such entity in the proposal and list the member names and/or organizations?

48. Is all staff listed in the proposal required to be hired and/or supported on the start date of the award?

49. What are a Work Breakdown Structure (WBS) and its dictionary?

50. For NCO proposals, in Section V.A of the solicitation under Project Description, what is the difference between Section 10, Governance Interactions, and Section 11, Component-Specific Implementation, as Section 11 requires information on Governance support?

51. For CI proposals, do I need to include a letter of collaboration from Purdue University, who is currently operating the NEEShub cyberinfrastructure, if the only role that Purdue University will have in my proposal is to help me transition its cyberinfrastructure content to my proposed cyberinfrastructure?

52. EF proposals are required to include a table that benchmarks the proposed experimental resources with comparable experimental facilities in the United States, and if applicable, globally. Should the benchmarking include both academic facilities and consulting/industry-based laboratories?

53. For EF proposals, what is a 250-day year for the Prospective and Retrospective Tables?

54. For EF proposals, the Prospective Table is to include a list of NSF awards that have already been identified to use the facility in year one, and the anticipated days allocated for facility use. Should known pending NSF proposals be included in this table?

55. What portion of the RAPID Facility's budget should be allocated to support the Facility Deployment Program after transition of cyberinfrastructure?

56. EF proposals are to request support starting in year two of the project. Must the organization be listed in the Project Description, Section 1, Summary Tables, Table 1, List of Participating Organizations, and if so, what information should be entered in the column entitled "total year-one requested support?" Since the subaward organization is not requesting NSF support in year one, should a letter of collaboration from this organization be included in the proposal section of Special Information and Supplementary Documentation?
74. For an EF proposal, in the Project Description, Section 1, Summary Tables, Table 2, List of Supported Project Personnel, should the number of months for the year-one level of effort shown for each individual match the number of months requested for year-one salary support for each individual on the NSF budget form?

75. Section V.A requires in the Project Description, Section 1, Summary Tables, Table 2, List of Supported Project Personnel, that all identified leadership and management positions must have individuals named. What if a staff position with the word "manager" in its title will not be filled until after the NSF award is made?

76. For a RAPID Facility proposal, the actual level of support, if any, during years two through five of the project for several senior personnel, who will assist with equipment training and deployment, will not be known until after the facility/equipment planning workshops are held during year one. Should these senior personnel be listed in the Project Description in Section 1, Summary Tables, Table 2, List of Supported Project Personnel?

77. In the proposal Project Description, Section 2, Results from Prior NSF Support, what individuals listed in the proposal need to provide information on NSF awards in this section?

78. For a RAPID Facility proposal, in the section on Facilities, Equipment, and Other Resources, is a Facility Financial Resource Operating Plan required if the equipment is only conceptual at the time of proposal submission?

PROPOSAL PREPARATION

80. The solicitation states that the Project Description must not exceed 45 pages and must use the section headings listed, with page limits shown with each required section heading as a guide for that section. The solicitation states that proposals may deviate from the section page limits; however, the total number of pages in the Project Description for Sections 2-17 must not exceed the 45-page limit. Can the number of pages for a particular section exceed the number of pages listed as a guide for that sections?

81. Can the template for the letters of collaborative arrangements be submitted on the collaborating organization's letterhead?

NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

82. How will NSF determine the number of earthquake engineering vs. wind engineering experimental facilities (EF) to support?

83. Will my proposal be returned without review if, as the PI for a CI component proposal, my qualifications do not meet all the PI qualification requirements listed in Sections II.C and II.E of the solicitation?

AWARD ADMINISTRATION

84. Section VII.B, Award Conditions, of the solicitation states that NSF oversight will include the following award-specific programmatic terms and conditions, for all awardees: "review and approval of requests to support graduate students who are U.S. citizens, U.S. nationals, or permanent residents of the United States to participate in awardee activities other than the NHERI-wide REU site activity and SimCenter Graduate Research Traineeships." Is there a list of additional NSF-approved awardee activities that can support graduate students who are U.S citizens, U.S. nationals, or permanent residents of the United States?

PROGRAM DESCRIPTION

1. The solicitation's Figure 1, Notional NHERI Construct, does not show interaction lines among all components, e.g., interactions among the Experimental Facility (EF) Awardees. Can proposed Governance interactions include additional interactions not shown in this Figure?

Yes. To simplify this diagram, all potential interactions among Awardees are not shown. Proposers should include cross-Awardee interactions, whether or not shown on this diagram, needed to make implementation of their project successful.

2. Can I serve as the Principal Investigator (PI) if I have no experience and track record in wind and/or earthquake engineering?

The solicitation lists qualifications for all PIs in Section II.C and additional qualifications for the PI of each proposed component in Sections II.D, II.G. The PI's qualifications must meet these two sets of requirements.
3. The solicitation lists qualifications for the all PIs in Section II.C and additional qualifications for the PI of each proposed component in Sections II.D, II.G. (a) Does the PI need to be both a distinguished earthquake engineering or wind engineering researcher and meet the additional PI qualifications listed for the proposed Network Coordination Office (NCO), Cyberinfrastructure (CI), Computational Modeling and Simulation Center (SimCenter), or Experimental Facility (EF) component in Sections II.D, II.G? (b) If the PI's qualifications do not meet all these requirements, can there be co-PIs or co-Directors who bring the expertise missing in the PI's qualifications?

(a) Yes, the PI's qualifications must meet these two sets of requirements. (b) No, other individuals cannot provide the missing expertise.

4. Will the solicitation support awards that can address coastal surge and wave processes related to windstorms?

Yes, as long as the coastal surge and wave processes are related to windstorm natural hazards.

5. What are the key components of a Science Plan? Where can I find examples of a Science Plan for the NCO, CI, SimCenter, and EF components?

The Science Plan presents the proposer's scientific vision for the field that justifies the resources, services, and activities proposed to support the NHERI vision in Section II.A of the solicitation. Section II.C in the solicitation describes the Science Plan content: "The Science Plan should outline: the compelling scientific vision, grand research challenges, the key research questions at the cusp of emerging discoveries for earthquake, wind, and/or multi-hazards engineering, and potential technical breakthroughs that can be enabled by the proposed component; the major resources, services, and activities to be provided to support investigation of these research questions; and the expected user base for each major resource, service, and activity." The Science Plan should be specific for the proposed component. Many NSF-supported large, multi-user facilities have Science Plans posted online; however, proposers must include in the Science Plan the information required by this solicitation. Several examples of Science Plans from other NSF-supported large facilities are the following:

- 2011 Science Strategy, Enabling Continental-Scale Ecological Forecasting, Figure 3, "How the Grand Challenges translate into the five key questions and then into the data products and the required NEON systems for observations," available at http://www.neoninc.org/sites/default/files/NEON_Strategy_2011u2_0.pdf.
- Atacama Large Millimeter/submillimeter Array (ALMA) Science https://almascience.nrao.edu/alma-science

6. What is the difference between the software tools on the Software Service Delivery Platform to be provided by the CI Awardee vs. those to be provided by the SimCenter Awardee?

The CI Awardee's Software Service Delivery Platform will provide software tools made available by the CI Awardee and new computational modeling and simulation tools developed by the SimCenter Awardee. The CI awardee's scope is to provide the following on the platform: the existing incumbent's tools and educational materials on the NEEShub, existing tools identified by users as critical for natural hazards engineering research and education, new research and educational tools developed by external users, and experimental testing tools of broad user interest. The SimCenter Awardee scope is to develop new computational modeling and simulation software tools to be delivered to the platform.

7. Can researchers and educators write proposals to NSF to conduct research that use SimCenter resources?

Yes.

8. Can SimCenter Awardee software tools be developed by subawardees not identified in the original proposal?

Yes, provided the new subawards to be issued by the SimCenter Awardee follow the NSF cooperative agreement terms and conditions and the Awardee's institutional policies and procedures for procurement.

9. What is a requirements traceability matrix?

A requirements traceability matrix is a commonly used project management tool for software development. The requirements traceability matrix maps user requirements to the elements of software tool design and features.

10. For the SimCenter, is it acceptable to develop open source software that can only run on a proprietary platform?
Yes, but all SimCenter software must be able to be broadly executed by the natural hazards engineering research and education community.

11. My university has both earthquake engineering and wind engineering experimental equipment. Can I submit an EF proposal for a combined earthquake and wind engineering experimental facility?

Yes, but the combined equipment must be proposed together to form one EF, as each academic institution can propose only one EF.

12. My institution has various earthquake engineering or wind engineering experimental equipment that could be combined to form an EF proposal. However, some of the equipment may not be allowed per Section II.G of the solicitation. Can NSF tell me prior to proposal submission if any of my equipment is not allowed?

Section II.G of the solicitation provides guidance on experimental resources to be proposed. Proposers should follow this guidance. The purpose of NHERI is to support "unique, technically advanced, major earthquake engineering research, wind engineering research, or post-disaster, rapid response research experimental equipment and instrumentation that do not exist elsewhere in the United States at comparable scale and testing capability." Section II.G. further states the type of equipment and experimental capabilities that will not be supported. The proposal should provide strong justification in the Science Plan for the wind engineering research, earthquake engineering research, or post-disaster, rapid response research experimental equipment and instrumentation proposed. NSF will not provide advice on experimental resource selection individually to proposers prior to proposal submission.

13. The solicitation, Section II.G, states that an EF for long-term instrumented structures and/or field sites will not be supported. However, my institution has a field structure that is permanently instrumented to capture hazard loading data that can be useful for future research studies. Can this structure be supported as part of an EF?

No, as a long-term instrumented structure, this structure will not be supported, even if it only collects data for load characterization. Proposals that include long-term instrumented structures will be returned without review.

14. The solicitation, Section II.G, states that "a facility with the primary focus and capability for development of advanced experimental testing algorithms and techniques" will be returned without review. However, a proposed EF with major wind engineering or earthquake engineering experimental resources will need to periodically develop and upgrade its testing algorithms and techniques, e.g., test protocols, data acquisition, and data analysis software, to stay current and ensure high quality testing. Is this scope of work allowed as part of an EF proposal?

Yes, provided the experimental resources that are proposed are unique, technically advanced, major earthquake engineering research, wind engineering research, or post-disaster, rapid response research experimental equipment and instrumentation that do not exist elsewhere in the United States at comparable scale and testing capability.

15. For an EF, on an annual basis, what percentage of time must be allocated for NSF-supported research and education awards to demonstrate" significant annual facility resource use by NSF-supported research and education awards," i.e., is there a minimum specified amount of time annually a proposed EF must be made available to accommodate NSF-supported users? My proposed facility is already significantly committed to other Federal and state agencies'; and industry testing activities, but I can make it available during short periods annually for NSF-supported users.

The solicitation does not state a minimum time period that a facility must allocate annually for NSF-supported users. To serve as a national, multi-user facility, the expectation is that the most of the facility's annual time will be used to accommodate NSF-supported awards.

16. For an EF, the solicitation requires "fully functional and calibrated resources for earthquake or wind engineering." Can my proposed EF have a few experimental resources, including a new major experimental component, which will be developed and made operational during the first year or second year?

The solicitation requires that the institution's Authorized Organizational Representative (AOR) must certify within two weeks of award, that on the start date of the award, all facility resources listed in the proposal are fully operational and that the facility is in compliance with institutional environmental, health, and safety (EH&S) policies. Do not include experimental resources for which the AOR will not be able to provide such certification.

17. For an EF proposal, several items of equipment or instrumentation will not be fully operational on the start
date of the award; they are integral to the operations of the facility but just need minor repair. I do not have the funds to repair them before the start date of the NHERI award. Can I request year-one upgrades to make my facility fully operational and EH&S compliant or to repair/replace this damaged equipment?

The solicitation states that the institution's Authorized Organizational Representative must certify within two weeks of award, that on the start date of the award, all facility resources listed in the proposal are fully operational and that the facility is in compliance with institutional EH&S policies. The year-one upgrades that may be provided do not replace an EF Awardee's responsibility to meet the above requirements on the start date of the award. Also, the solicitation states that NSF support will not be provided to repair/replace equipment that was damaged or not operational for its intended use prior to the effective start date of the award. Do not include experimental resources for which the AOR will not be able to provide the above certification.

18. For an EF, what type of equipment qualifies as minor equipment for potential year-one upgrades?

The solicitation, Section II.G, provides examples of minor equipment: minor equipment to improve facility EH&S, data management hardware and software, telepresence equipment, and equipment for specimen transport within the facility.

19. For an EF, will I receive NSF support for all the year-one upgrades I request in my proposal?

To operate its facility, EF Awardees should not assume that any of the requested year-one upgrades will be supported. Year-one upgrades will be supported based on prioritization, justification of need, and availability of NSF funding. The year-one upgrades requested do not replace an EF Awardee's responsibility to provide a fully operational and EH&S compliant facility on the start date of the award, as will be certified by the AOR.

20. For the post-disaster, rapid response research (RAPID) Facility, who is responsible for curating and archiving the collected field data?

The collected field data must be curated and archived in the CI Awardee's NHERI data repository. However, before submission for curation and archiving to the CI Awardee, the collected field data must be prepared by either the RAPID Facility or its users, as specified in the RAPID Facility's Deployment Plans and Data Management Plan, in the metadata and data formats required by the RAPID Facility's Data Management Plan developed with the CI Awardee and the community.

21. Is the NCO or are the EF Awardees responsible for developing the NCO's Facility Scheduling Protocol? Are there examples of Facility Scheduling Protocols?

The NCO is the Awardee responsible for developing and implementing the Facility Scheduling Protocol to be used for scheduling users at each EF. Many NSF-supported large facilities have scheduling policies and procedures that are available online.

22. Why does the NCO need a Software Development and Lifecycle Management Plan?

The solicitation, Section II.C, requires that all Awardees must have a Software Development and Lifecycle Management Plan, in anticipation that all awardees, including the NCO, may have activities specific to their proposed component during the award period that will involve software development. All software development must be done in accordance with the Awardee's Software Development and Lifecycle Management Plan.

23. What is the role of the NCO in running the Research Experiences for Undergraduates (REU) site program and what is the role of the other NHERI awardees (CI, SimCenter, and EF)?

The NCO is responsible for leading and running the NHERI-wide REU site program in accordance with a scope and budget allowable per the NSF REU solicitation in effect during that REU site period. The NCO will be responsible for all activities and costs associated with the REU site program, including posting REU program information on the NHERI website, REU student recruitment, selection, and placement across the various NHERI Awardee project locations, REU participant support costs, any centralized REU student activities and training, and program evaluation. All NHERI Awardees must host and provide REU experiences for at least two students annually.

24. What is the NHERI Summer Institute and are there examples of Summer Institutes?

The goal, scope, and organization of the NHERI Summer Institute are open-ended in the solicitation to enable the NCO to provide community leadership for this activity as part of its Education and Community Outreach program. Examples of NSF-supported Summer Institutes can be found by searching NSF awards at
25. The solicitation requires a Software Development and Lifecycle Management Plan for all Awardees. If the proposed component will need to acquire commercial software, is this allowable, and does this software need to be follow the Software Development and Lifecycle Management Plan?

Acquisition of commercial software is allowed, provided its procurement is fully justified for the project. The Awardee does not need to follow the Software Development and Lifecycle Management Plan for this acquisition.

26. Can I submit a proposal to use support under a NHERI experimental facility (EF) award to develop a new testing laboratory at my institution that is not a RAPID Facility?

No, as Section II.G states that the solicitation will not support the following: “With the exception of the RAPID Facility, the establishment of a new laboratory, acquisition of new/replacement major experimental equipment, major equipment refurbishments and upgrades, capital improvements to existing laboratory buildings and space, and construction of new buildings.” The solicitation requires that the institution’s Authorized Organizational Representative (AOR) must certify within two weeks of award, that on the start date of the award, all facility resources listed in the proposal are fully operational and that the facility is in compliance with institutional EH&S policies. Do not include any experimental resources for which the AOR will not be able to provide such certification.

27. Please clarify the role of the RAPID Facility in supporting researchers in the field.

Proposers should describe in their proposals how facility resources will be deployed and research teams supported for quick response research following a natural hazard event. Proposals for this facility must include development of a consensus-based Community Research Team Deployment Plan (CRTDP) that supports two types of facility deployment, such as: (a) a Facility Deployment Program and (b) an External Deployment Program. Under the Facility Deployment Program, the RAPID Facility Awardee is responsible, through its budget, for forming coordinated quick response research field teams, who require use of facility resources, in accordance with its CRTDP, and then financially supporting these coordinated team(s) in the field, as well as financially supporting all facility deployment logistics, personnel, and resources, following a natural hazard event of significant research interest, e.g., 2005 Hurricane Katrina and 2011 Tohoku, Japan earthquake and tsunami. Where many individuals will want to participate in quick response research, there will be high demand for facility resources, and a coordinated approach will best serve the broader research community for perishable data collection. For such large events, researchers and teams that do not require use of facility resources will be supported by NSF through separate RAPID awards or supplements to existing awards. Under the External Deployment Program, for an event of more focused research interest, e.g., 2009 American Samoan and Western Samoan Islands earthquake and tsunami, NSF will support researchers to collect perishable research data through separate RAPID awards or supplements to existing NSF awards. The separately NSF-supported researchers would be responsible for their own travel, logistics, RAPID Facility equipment transport, and permits. If the research team requires field support by the RAPID Facility, then the RAPID Facility will support its staff travel costs through its Awardee budget.

28. For the cyberinfrastructure (CI) component, what is the intent and scientific basis for the dual requirement that the PI should be a distinguished earthquake engineering or wind engineering researcher per Section II.C of the solicitation and have prior accomplishments in cyberinfrastructure design, development, operations, and management for research communities per Section II.E of the solicitation?

Section II.A of the solicitation outlines the vision for NHERI for natural hazards research and education for civil infrastructure. The PI of each NHERI component (NCO, CI, SimCenter, and EF) will be critical to realizing this vision through successful execution of his/her component. Therefore, to enable successful execution of the CI component, the solicitation requires that the PI of the CI component should be a distinguished earthquake engineering or wind engineering researcher (Requirements listed in Section II.C of the solicitation) and have prior accomplishments in cyberinfrastructure design, development, operations, and management for research communities (Requirements listed in Section II.E of the solicitation). Proposers are reminded that in accordance with the Additional Solicitation Specific Review Criteria listed in Section VI.A of the solicitation, reviewers will be asked to address the strengths and weaknesses of the proposed CI component, including the PI qualifications, with respect to the quality of the proposal in responding to the requirements and responsibilities in Section II.C, All Awardees (NCO, CI, SimCenter, and EF) - Common Awardee Requirements and Responsibilities, and the requirements and responsibilities in Section II.E, Cyberinfrastructure (CI) Component - Additional Awardee Requirements, Responsibilities, and Key Year One Milestones.
29. Can an individual serving as PI or co-PI on one proposal be named as Senior Personnel (Faculty and other Senior Associates) in another proposal?

Yes, provided that the PI or co-PI, his/her organizational affiliation, and type of requested support meet all solicitation eligibility requirements.

30. If an academic institution is the lead on two proposals, is there a limit on the number of proposals that the academic institution can participate in as the non-lead institution?

No, provided that the institution’s employees named on all submitted proposals meet all solicitation eligibility requirements.

31. Can an individual who is named as Senior Personnel in one proposal (not PI or co-PI) participate in other proposals as Senior Personnel (not PI or co-PI)?

Yes, provided that the individual, his/her organizational affiliation, and type of requested support meet all the solicitation eligibility requirements.

32. Must all co-PIs be from academic institutions and be U.S. citizens or permanent residents?

An individual may be co-PI on only one proposal. The co-PI, his/her organizational affiliation, and type of requested support must meet all the solicitation eligibility requirements.

33. Can individuals from non-profit, non-academic organizations, such as professional societies, be supported on an award?

Yes, provided that the individuals and their organizational affiliations meet all the solicitation's eligibility requirements.

34. Can NSF help me identify potential proposal partners or identify proposers who will lead a proposal that may be seeking additional project partners?

No, as it is the responsibility of proposers to form their own proposal teams.

35. Can an EF proposal include national and international partners for value-added strategic partnerships that bring additional unique experimental resources and capabilities beyond that at the lead institution and describe these additional resources in the proposal section on Facilities, Equipment and Other Resources?

The solicitation, Section IV, states that a “proposal for an EF, including the RAPID Facility, must be a single academic institution proposal with all proposed facility resources owned, operated, and maintained by the academic institution and located within the United States to facilitate access by NSF-supported users.” The solicitation states in Section II.G. that a distributed facility, with resources owned, housed, and/or maintained by multiple organizations and a facility with any equipment that can only be accessed or used outside the United States will be returned without review. A proposed EF with distributed experimental resources (e.g., testing equipment, sensors, and other resources) located at both the lead institution and at other locations owned/operated by other organizations, regardless of the location of the resources (national or international) and regardless of whether or not the resources located at the other organizations will request NSF support, will be returned without review.

36. Can proposals include project participants who are consultants?

Yes, provided that the consultant and his/her organizational affiliation meet all the solicitation eligibility requirements.

37. I plan to submit a proposal from my academic institution as the PI or co-PI. I also have been asked by another academic institution to participate as an unfunded collaborator in that institution’s proposal and provide a letter of collaboration. Will my letter of collaboration included in the other proposal make my own proposal ineligible?

An individual may serve as PI or co-PI in only one proposal. A PI or co-PI may serve as an unfunded collaborator and provide a letter of collaboration in another proposal as long as he/she is not named as a PI or co-PI in that other proposal.

38. Section II.G of the solicitation considers a RAPID Facility as an Experimental Facility. Can an individual participate as a co-PI supported in an Experimental Facility (large-scale testing equipment laboratory) proposal and also as Senior Personnel supported in a RAPID Facility proposal?
Yes, provided that the individual, his/her organizational affiliation, and type of requested support meet all solicitation eligibility requirements. As a reminder, per Section IV, a proposal for an Experimental Facility (EF), including the RAPID Facility, must be a single academic institution proposal with all proposed facility resources owned, operated, and maintained by the academic institution and located within the United States to facilitate access by NSF-supported users. Section IV also states that an institution may not submit more than one proposal as the lead institution in the Experimental Facility (EF) category, which includes the RAPID Facility.

**LETTERS OF INTENT (LOI)**

39. **The solicitation states for the LOI: “A Minimum of 0 and Maximum of 4 Other Senior Project Personnel are allowed.” Does this mean that a full proposal can only include 1 PI, 4 co-PIs, and 4 Other Senior Personnel?**

   No. The Senior Personnel may include one PI, up to 4 co-PIs, and as many additional Faculty and Other Senior Associates as needed for the project.

40. **What can be included in the Other Comments section of the LOI?**

   The LOI must include the following information: (a) name of lead institution, (b) names of participating organizations, and (c) names and organizational affiliations of the PI, co-PIs, Other Senior Project Personnel, Leadership and Management Team, and Other Project Personnel. Also include the information requested for the NCO, CI, SimCenter, or EF, as appropriate for your proposal. Information that cannot be entered within the prescribed boxes, e.g., Additional Information and Participating Organizations, may be included under Synopsis or Other Comments.

41. **Why are there two "Additional Project Personnel (name, organizational affiliation) is required when submitting Letters of Intent" listings under Letter of Intent?**

   You only need to list Additional Project Personnel once in the Letter of Intent.

42. **What information should be included under "Other Comments?"**

   There is no prescribed information for "Other Comments." An institution may use that section to provide further description of their planned proposal.

43. **I am planning to serve as PI on a proposal. Can NSF tell me the names of the other PI(s) from my academic institution who have submitted Letters of Intent?**

   No, as no feedback will be provided to submitters on their Letters of Intent. It is the responsibility of the submitting academic institution to coordinate all NSF 14-605 full proposal submissions and meet the eligibility requirements.

44. **Can NSF provide feedback on the proposed plans described in my Letter of Intent submission?**

   No, as no feedback will be provided to submitters on the contents of the Letters of Intent.

**FULL PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS**

45. **Is the number of co-PIs limited to four?**

   Yes, as FastLane will only permit up to four co-PIs on the Cover Sheet.

46. **NHERI Awardees are to work/collaborate together. Do I need to list other NHERI proposers in the Project Description, Summary Tables, as collaborators?**

   No, other NHERI proposers must not be listed in the Summary Tables.

47. **Can a proposal include an Advisory Board, Advisory Committee, Practice Committee, or similar such entity in the proposal and list the member names and/or organizations?**

   No. Only the Governance groups listed in the solicitation will be supported under NHERI, with the exception of the RAPID Facility External Steering Committee. Proposals must not include the names of any committee members or committee chairs, as all committees, including the Network Independent Advisory Committee (NIAC), User Forum, and RAPID Facility External Steering Committee, are to be populated after awards are made by NSF. Section X of the solicitation states that proposals that include names of committee members, chairs, and organizational affiliations will be returned without review.
48. Is all staff listed in the proposal required to be hired and/or supported on the start date of the award?

Proposers need to provide justification in their proposal for the role and responsibility of each staff member proposed; if a project participant's role does not commence at the start of the project, then that participant does not need to be supported until their role commences.

49. What are a Work Breakdown Structure (WBS) and its dictionary?

A WBS is a commonly used project management tool, as described in http://www.nsf.gov/pubs/2013/nsf13038/nsf13038new.pdf.

50. For NCO proposals, in Section V.A of the solicitation under Project Description, what is the difference between Section 10, Governance Interactions, and Section 11, Component-Specific Implementation, as Section 11 requires information on Governance support?

Section 10 must describe how the NCO will interact with the Governance structure and describe up to three NHERI-wide policies and procedures, up to three committees, and up to three cross-Awardee activities that would be beneficial to the operations of the proposed NCO component. Section 11 should describe how the NCO will support the Governance structure, as well as describe how the NCO will be implemented to meet other requirements and responsibilities listed in the solicitation’s Section II.D.

51. For CI proposals, do I need to include a letter of collaboration from Purdue University, who is currently operating the NEEShub cyberinfrastructure, if the only role that Purdue University will have in my proposal is to help me transition its cyberinfrastructure content to my proposed cyberinfrastructure?

No letter is required, as Purdue University has already been supported by NSF to operate the cyberinfrastructure through May 31, 2015, which includes assistance with the cyberinfrastructure transition to a new CI Awardee.

52. EF proposals are required to include a table that benchmarks the proposed experimental resources with comparable experimental facilities in the United States, and if applicable, globally. Should the benchmarking include both academic facilities and consulting/industry-based laboratories?

The solicitation has no requirements for the types of facilities to include in the benchmarking table.

53. For EF proposals, what is a 250-day year for the Prospective and Retrospective Tables?

A 250-day year is 50 weeks per year, five work days per week.

54. For EF proposals, the Prospective Table is to include a list of NSF awards that have already been identified to use the facility in year one, and the anticipated days allocated for facility use. Should known pending NSF proposals be included in this table?

No, do not include any pending NSF proposals in this table.

55. What portion of the RAPID Facility's budget should be allocated to support the Facility Deployment Program after a wind or earthquake event?

There is no predetermined percentage to be allotted. Proposed allocations may be identified in the WBS and budget justification.

56. The Special Information and Supplementary Documentation section may include a Section F, Biographical Sketches of Additional Project Personnel. What constitutes "Additional Project Personnel?"

In accordance with the NSF Grant Proposal Guide, a biosketch is required for each individual identified as Senior Personnel (PI, co-PI, Faculty and other senior personnel) on the NSF Budget Form. Proposals may include up to 10 additional biosketches for additional project personnel who are not Senior Personnel, as appropriate, e.g., individuals listed under Other Personnel or Consultant Services on the NSF budget form, or unfunded collaborators.

57. Can project staff be supported for less than 1.0 full-time equivalent (1.0 FTE) annually?

Yes, if this requested NSF support is commensurate with the staff member's role and responsibilities.

58. Can proposals include budgets for costs associated with computer hardware and commercial software?
Yes, however, the proposal must provide justification for all requested computer hardware and commercial software, and NSF will review budget requests prior to making awards.

59. If an EF is used 100% annually to accommodate NSF-supported awards, will it be required to have institutionally-established user fees/recharge rates or can the requested annual budget totally fund the facility operations without having some costs assigned to NSF-supported users through institutionally-established user fees/recharge rates?

The facility total operations budget is to be a combination of support provided through the NSF NHERI award, support provided through institutionally-established user fees/recharge rates charged to NSF-supported users for costs not covered by the NSF NHERI award, and support provided by non-NSF supported users who pay full recovery costs to utilize the facility through institutionally-established user fees/recharge rates. Within two weeks of the start date of the award, the institution’s Authorized Organizational Representative must submit a complete list of the institutionally-established user fees/recharge rates for the EF.

60. Is there an upper bound limit for each EF annual budget request?

No, however, annual requested NSF budgets for an EF should not request a disproportionate amount of this total support anticipated for up to six EF award base budgets in Section III, Award Information, as each EF total operations budget is to be a combination of support provided through the NSF NHERI award, support provided through institutionally-established user fees/recharge rates charged to NSF-supported users for costs not covered by the NSF NHERI award, and support provided by non-NSF supported users who pay full recovery costs to utilize the facility through institutionally-established user fees/recharge rates.

61. For an EF proposal, can I include the year-one upgrades in the NSF budget request for year one?

No, the solicitation states that annual requested NSF budgets should not include budget allocations for potential additional support for year-one EF upgrades, annual Council work plan activities, and EF equipment repairs.

62. For a RAPID Facility, should user fees and recharge rates cover equipment maintenance and refresh?

The RAPID Facility Awardee's institution is responsible for establishing user fees and recharge rates, and what these fees/rates will cover, in accordance with its institutional policies.

63. If several EF Awardees plan to use the same equipment maintenance vendor, will NSF consider soliciting a separate maintenance contract to cover the costs of equipment maintenance for these awards? If not, can we include the costs for equipment maintenance in the proposal budget?

NSF will not solicit a separate maintenance contract for Experimental Facility Awardees’ equipment maintenance. Section V.B. of the solicitation states that for Experimental Facility proposals, the "budget justification should include itemized, equipment-specific costs for annual maintenance and calibration.” However, after all EF awards are made, EF Awardee institutions may consider among themselves economy of scale strategies and budget savings in jointly procuring an equipment maintenance vendor, subject to their institutional procurement rules and NSF cooperative agreement terms and conditions.

64. Can the NSF budget request include graduate student tuition support/stipend for a student who is not a U.S. citizen, U.S. national, or permanent resident of the United States?

No, as this will not be an allowable cost on any NHERI award.

65. How should the REU site program be budgeted by the NCO and budgeted by the other NHERI awardees?

All costs for execution of the REU site program, including REU student stipends, must be part of the NCO's requested budget, with the following exception: separately, all NHERI Awardees must budget up to $10,000 annually for the Awardee's local staff time (e.g., faculty member or graduate student) to work with the REU students at the Awardee's project location.

66. Are vendor quotes required for proposed purchases other than equipment?

Vendor quotes should be provided, as appropriate, to present a complete budget justification.

67. Does support under a NHERI award prohibit project personnel from submitting proposals to other NSF programs?


NSF provides many funding opportunities. Some have specific eligibility criteria. Prior to submitting a proposal to any NSF funding opportunity, proposers should check the eligibility criteria.

68. **I have additional information posted on my website I would like the reviewers to see. May I refer readers to my website within the Project Description?**

Pls are advised that per the NSF Grant Proposal Guide, the Project Description must be self-contained and are cautioned that a website that provides information related to the proposal should not be used because: 1) the information could circumvent page limitations; 2) the reviewers are under no obligation to view such a site; and 3) the site could be altered or abolished between the time of submission and the time of review.

69. **What if my proposal is submitted after the full proposal deadline?**

The proposal will be returned without review. Proposals must be submitted in FastLane or Grants.gov by December 3, 2014, 5 p.m. proposer’s local time, with a stamped time no later than 4:59 pm to ensure that the 5 p.m. deadline is met.

70. **Can I submit my proposal prior to the day of the full proposal deadline?**

Yes, submitting the proposal well before the deadline is strongly encouraged as it provides the institution and PI an opportunity to review the proposal prior to the deadline for compliance, and if the proposal is compliant, ensures a proposal submission stamped time *prior* to the full proposal deadline.

71. **I am having problems submitting my proposal and the full proposal deadline is almost here. Who should I contact?**

Issues and questions related to the NSF FastLane system should be directed to the FastLane User Support desk at (800) 673-6188. You can also send an e-mail message to fastlane@nsf.gov. For information on the availability of the NSF FastLane system, phone (800) 437-7408 for a recorded message. For Grants.gov user support, contact the Grants.gov Contact Center by phone at (800) 518-4726 or by email at support@grants.gov. Institutions are strongly encouraged to submit their proposals on behalf of their faculty PI well in advance of the deadline to allow time to correct any problems that may occur in the submission process.

72. **I just noticed a major problem with my full proposal. The full proposal deadline has not passed so can I fix the problem?**

Yes, if you see a problem *before the deadline*, you may use the FastLane Proposal File Update Module to replace files or revise other Proposal Attributes of a submitted proposal. An automatic request for a proposal file update will be accepted only if submitted prior to the full proposal deadline. Pls and their institutions should thoroughly review the proposal before it is submitted, including identifying any PDF conversion or printing problems. Pls and their institutions are strongly encouraged to download the final submitted version of the proposal from the FastLane site well before the full proposal deadline to ascertain that that version contains all the proposal parts and that it is compliant.

73. **A participating subaward organization in my proposal will request support starting in year two of the project. Should this organization be listed in the Project Description, Section 1, Summary Tables, Table 1, List of Participating Organizations, and if so, what information should be entered in the column entitled “total year-one requested support?” Since this subaward organization is not requesting NSF support in year one, should a letter of collaboration from this organization be included in the proposal section on Special Information and Supplementary Documentation?**

Because the subaward organization will be requesting support during the five-year project period, list and include information about this organization in Table 1. For this organization, enter "one" in Table 1 under the column "total year-one requested support." Personnel from this organization who will request support in the NSF budget during the project period should also be listed in Table 2, List of Supported Project Personnel. Since this organization will be requesting support during the project period, do not include a letter of collaboration from the organization or from participating individuals of that organization in the proposal section on Special Information and Supplementary Documentation.

74. **For an EF proposal, in the Project Description, Section 1, Summary Tables, Table 2, List of Supported Project Personnel, should the number of months for the year-one level of effort shown for each individual match the number of months requested for year-one salary support for each individual on the NSF budget form?**
Yes. The year-one level of effort (number of months) for an individual listed in Table 2 should match the number of months of year-one support requested for that individual on the NSF budget form. If that individual will make available an additional level of effort (additional months above that requested on the NSF budget form) to the project through support provided by charging NSF users institutionally-established user fees/recharge rates, then in the proposal section on Facilities, Equipment, and Other Resources, in the table for the Facility Financial Resource Operating Plan (EF Inventory Table), for that individual's listing, under the column "Sources of Support" enter both "NHERI Award and Institutionally-Established User Fees/Recharge Rates."

75. **Section V.A requires in the Project Description, Section 1, Summary Tables, Table 2, List of Supported Project Personnel, that all identified leadership and management positions must have individuals named. What if a staff position with the word "manager" in its title will not be filled until after the NSF award is made?**

If the staff position with the word "manager" in its title is identified in Table 2 as a leadership or management position, then the name of the individual who will fill that position must be included in Table 2. The solicitation states that "proposals that do not identify the names for all leadership and management positions in Table 2 will be returned without review and will not receive further consideration."

76. **For a RAPID Facility proposal, the actual level of support, if any, during years two through five of the project for several senior personnel, who will assist with equipment training and deployment, will not be known until after the facility/equipment planning workshops are held during year one. Should these senior personnel be listed in the Project Description in Section 1, Summary Tables, Table 2, List of Supported Project Personnel?**

Yes, include information about each of these senior personnel in Table 2, List of Supported Project Personnel. If no year-one support is requested for these senior personnel, then enter "none" in the column for the "year-one level of effort."

77. **In the proposal Project Description, Section 2, Results from Prior NSF Support, what individuals listed in the proposal need to provide information on NSF awards in this section?**

The Project Description, Section 2, Results from Prior NSF Support, must comply with the proposal preparation requirements listed in NSF 14-1, Grant Proposal Guide (GPG), Section II.C.2.d.iii, "Results from Prior NSF Support." Information must be listed for the PI and each co-PI named in the proposal (cover sheet) who has received NSF funding (including any current funding) in the past five years. Proposers are reminded to thoroughly review this section of the GPG to ensure that the submitted proposal is fully compliant with this GPG requirement. As stated in the solicitation, Section X.A, Full Proposal Compliance Checklist, a proposal that is not compliant with the GPG, except where the NSF 14-605 solicitation included additional eligibility limitations in Section IV and required deviations in proposal preparation and submission instructions in Section V, will be returned without review. In Section V.A of the solicitation, the requested Project Description, Section 2, Results from Prior NSF Support, does not deviate from the proposal preparation instructions in the GPG, Section II.C.2.d.iii; therefore, proposals not compliant with this GPG requirement will be returned without review.

78. **For a RAPID Facility proposal, in the section on Facilities, Equipment, and Other Resources, is a Facility Financial Resource Operating Plan required if the equipment is only conceptual at the time of proposal submission?**

For a RAPID Facility proposal that includes only concepts for potential facility equipment, the Facility Financial Resource Operating Plan does not need to be included in the proposal.

79. **Can the NSF budget request include support for travel to conferences (domestic and international) and collaboration meetings?**

Yes, provided that the conferences and collaboration meetings are necessary to accomplish the objectives of the proposed work or to disseminate its findings, and are specified and itemized by destination and cost in the budget justification.

**PROPOSAL PREPARATION**

80. **The solicitation states that the Project Description must not exceed 45 pages and must use the section headings listed, with page limits shown with each required section heading as a guide for that section. The solicitation states that proposals may deviate from the section page limits; however, the total number of pages in the Project Description for Sections 2-17 must not exceed the 45-page limit. Can the number of**
81. Can the template for the letters of collaborative arrangements be submitted on the collaborating organization’s letterhead?

Yes, but using letterhead is not required.