

**Pre-Proposal Application Guidelines**  
**EPSCoR FY 2022 Cooperative Agreement Notice (CAN) NNH22ZHA005C**  
**Request for a 4-page pre-proposal**

New Mexico is eligible to submit one proposal under the NASA Established Program to Stimulate Competitive Research (EPSCoR) Research Announcement.

Email your **4-page pre-proposal** to [kcoogler@nmsu.edu](mailto:kcoogler@nmsu.edu). Your pre-proposals should be prepared with the intention of submitting a full proposal. Your pre-proposal is due by noon, December 10, 2021. **This is a hard deadline; no extensions will be provided.** We have provided a link to the FY 2022 NASA EPSCoR Established Program to Stimulate Competitive Research (EPSCoR) CAN for your reference.

<https://nspires.nasaprs.com/external/solicitations/summary/init.do?solId=%7bEE6E1291-277C-E9E7-49C3-14C2E384620D%7d&path=open>

**PRE-PROPOSAL ELEMENTS SHOULD INCLUDE (4 PAGES):**

**Cover sheet not contained in page count**

- Research title
- Project Description/Intrinsic merit- 1 page
- Alignment with a NASA research priority and alignment with the New Mexico EPSCoR jurisdiction – 1 page
- List of statewide collaborators- no page limit
  - Please include: name, title, institution
- Email from NASA collaborator – no page limit
  - Please include: name, title, and NASA Field Center
  - Statement from NASA collaborator- “I support this project and if the pre-proposal is selected by the committee I will provide a full letter of support”

**PRE-PROPOSAL WILL NOT BE EVALUATED IF EMAIL FROM NASA COLLABORATOR IS NOT PROVIDED**

- Budget justification/narrative -½ page.
- Budget- 1 page
  - Preparation guidelines for the budget can be found on Appendix C on Page 35 in the NASA Guidebook for Proposers, which includes a suggested format to use in preparing the proposed budget.
  - All sources of cost-sharing shall be described and documented. Your university must sign off on this pre-proposal including cost share. Description on how the proposers will seek follow-on funding and provide 50% matching funds is required. Indicate your team can do the work proposed within the \$750,000 budget and the 3-year time period.
- Management and Evaluation - ½ page

Once we receive the pre-proposals, the New Mexico NASA EPSCoR Technical Advisory Committee (TAC) will select the project determined to have the best competitive chance of being funded by NASA. Only one pre-proposal will be selected.

The purpose of NASA EPSCoR is to establish research programs that will make significant contributions to the strategic research and technology development priorities of one or more of the four NASA Mission Directorates, Office of Chief Technologist, and/or one or more of the NASA's nine Field Centers, plus the Jet Propulsion Laboratory; and contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of New Mexico.

'Each NASA EPSCoR project shall perform scientific and/or technical research in areas that support NASA's strategic research and technology development priorities. Proposals shall emphasize developing capabilities to compete for funds from NASA and non-NASA sources outside of EPSCoR. *The projects shall move increasingly towards gaining support from sources outside NASA EPSCoR* by aggressively pursuing additional funding opportunities offered by NASA, industry, other federal agencies, and other sources' (p. 9, solicitation).

The intent of NASA EPSCoR is to support emerging research program in the state, it is not intended to support fully mature programs.

A Science and Technology Plan for New Mexico's Future for your review is available at

<http://www.itpnm.com/NMS&TPlanDecember2015.pdf>

*Note* that the NM Economic Development Department, Office of Science & Technology has not yet to put together an updated S&T Plan for New Mexico.

The NM NASA EPSCoR program supports research of interest to the NM Economic Development Department (EDD). Among key industries identified by the EDD are: Aerospace and defense, biosciences, sustainable agriculture, intelligent manufacturing, and cybersecurity. <https://edd.newmexico.gov/choose-new-mexico/key-industries/>

Prior EPSCoR awards are posted on the NASA New Mexico EPSCoR jurisdiction website for your review at: <http://nmnasaepscor.com/#> under the 'Projects' tab. These proposals along with the NASA Guidebook for Proposers (2021), NASA Strategic Plan (2018) and NASA 2020 Technology Taxonomy are useful tools to help you prepare for this announcement. Please take time to familiarize yourself with these documents if you intend to submit a proposal under this new announcement.

Current Awards Include:

- Autonomous Structural Composites for Next Generation Unmanned Aircraft Systems
- In Orbit Structural Health Monitoring of Space Vehicles
- Next Generation Additive Manufacturing for Space Applications
- Efficient Microgravity Heat and Mass Transfer with no Moving Parts

NASA Guidebook for Proposers (2021) can be reviewed at:

[https://www.nasa.gov/sites/default/files/atoms/files/2021\\_ed\\_nasa\\_guidebook\\_for\\_proposers.pdf](https://www.nasa.gov/sites/default/files/atoms/files/2021_ed_nasa_guidebook_for_proposers.pdf)

The members of the TAC are chosen to represent the three research universities: NMSU, UNM, and NM Tech., and other institutions of higher education in the state. They are members of a statewide body of collaborators and also include external evaluators. As this is a statewide program; NASA requires the lead institution to involve research universities statewide. The full proposal is submitted to NASA where they are competitively reviewed. The role of the NM EPSCoR TAC is to assure the proposal most likely to be awarded is well written, feasible and the project is well structured before it is sent forward to NASA.

‘The NASA EPSCoR Jurisdiction Director will serve as the managing Principal Investigator (PI) for the award, providing leadership and administrative direction for the team from an oversight role. The submitting and awardee institution will be that of the NASA EPSCoR Jurisdiction Director, who is responsible for oversight and overall administrative management of the project to assure compliance with NASA EPSCoR’ (p. 8, solicitation).

## **PRE-PROPOSAL EVALUATION:**

This section is meant to help you understand the big items that will make your proposal successful not only in the Pre-Proposal process, but also help you prepare for and to write the full proposal should your proposal be selected by the TAC. **Pre-Proposal evaluation will be based on: Intrinsic Merit; NASA Alignment and Partnerships; Management and Evaluation; Budget Justification: Narrative and Details**

### **Evaluation Criteria**

#### **Intrinsic Merit – 35%**

- Proposed research shall have clear goals and objectives; address the expectations described in the announcement; and be consistent with the budget, effectively utilize the program management, and demonstrate a high probability for successful implementation.
- Proposals shall provide a detailed narrative of the proposed research activity, including the scientific and/or technical merit of the proposed research, unique and innovative methods, approaches, concepts, or advanced technologies, and the potential impact of the proposed research on its field.
- Existing research proposals shall provide baseline information about current research activities within the jurisdiction in the proposed research area, including projects currently funded under NASA EPSCoR.
- If the proposed research represents a new direction for the jurisdiction, the technical team's ability to conduct the research shall be explained. Other relevant research and technology development programs within the jurisdiction shall also be included.

#### **NASA Alignment and Partnerships – 35%**

- Proposals shall discuss the value of the proposed research to NASA and the jurisdiction research priorities.
- Proposals shall describe the use of NASA content, people, or facilities in the execution of the research activities.
- Proposals shall describe current and/or previous interactions, partnerships, and meetings with NASA researchers, engineers, and scientists in the area of the proposed research, and discuss how future partnerships between the institution's researchers and personnel at the Mission Directorates, Centers, and/or JPL will be fostered.
- The name(s) and title(s) of NASA researchers with whom the proposers will partner shall be included. NASA shall consider the utilization of NASA venues for recipients to publish their accomplishments.
- Proposals shall articulate clearly how the proposed research activities build capacity in the jurisdiction.
- In particular, proposers shall explain how this proposed research is related to the strategic plan for NASA EPSCoR-related research in the jurisdiction.
- Proposals shall state how they plan to develop research competitiveness both in the jurisdiction and nationally.
- Proposals shall delineate mechanisms for building partnerships with universities, industry, and/or other government agencies to enhance the ability of the jurisdiction to achieve its objectives, to obtain and leverage sources of additional funding, and/or to obtain essential services not otherwise available.

**Management and Evaluation – 15% NOTE: The following information does not count toward the 15-page limit for the Scientific, Technical, or Management section of the table.**

This section shall describe the management structure for the proposed research and coordination with the jurisdiction's NASA EPSCoR project management. The following elements shall be included:

- **Personnel:** The proposal shall include a list of the personnel participating in this research program, including Principal Investigator, Science-Investigator, and all Co-Investigators, Research Associates, Post-Doctoral Fellows, Research Assistants, and other research participants. The credentials of the researchers are important; however, EPSCoR includes the concept of encouraging and helping new researchers.
- **Research Project Management:** A description of the Science-I's management structure of the proposed research project, and the extent to which the project's management and research team will lead to a well-coordinated, efficiently-managed, and productive effort shall be included.
- **Multi-Jurisdiction Projects:** If the proposed research is a collaboration between more than one NASA EPSCoR jurisdiction, one jurisdiction shall be identified as the lead with additional partners identified as sub-awardees. The proposal shall detail the inter-jurisdiction management structure of the proposed research project, including a list of the participating jurisdictions, and the participating universities and agencies within each jurisdiction. Multi-jurisdictional proposals shall not exceed the \$750,000 limit.
- **Project Evaluation:** Proposals shall document the intended outcomes and offer metrics to demonstrate progress toward and achievements of these outcomes. They shall discuss metrics to be used for tracking and evaluating project progress. Milestones and timetables for achievement of specific objectives during the award period shall be presented. The proposal shall describe an appropriate evaluation plan/process to document outcomes and demonstrate progress toward achieving objectives of proposed project elements. Evaluation methodology shall be based upon reputable models and techniques appropriate to the content and scale of the project. Projects shall implement improvements throughout the entire period of performance based on ongoing evaluation evidence.
- **Results of Prior NASA EPSCoR Research Support:** Examples of accomplishments commensurate with the managerial and administrative expectations of the award shall be provided. The EPSCoR Director will not be assessed on his/her expertise in the specific proposed research area since the Science-PI is tasked with managing the scientific/technical development progress. The following information shall be provided: the NASA EPSCoR award number(s), the title of the project(s); and period(s) of performance; primary outcomes resulting from the NASA EPSCoR award, including a summary discussion of accomplishments compared to the proposed outcomes from the original proposal; coordination with the research and technical development priorities of NASA, and contribution(s) to the overall research capacity of the jurisdiction.

**Budget Justification: Narrative and Details – 15%**

- The proposed budget shall be adequate, appropriate, reasonable, and realistic, and demonstrate the effective use of funds that align with the content and text of the proposed project. Preparation guidelines for the budget can be found in the NASA Guidebook for Proposers, Section 3.18 and Appendix C in solicitation NNH22ZHA005C.
- A detailed budget, including both NASA provided and cost-share funds, is required. This section shall include detailed budgets for each of the three years of the funding and a summary budget for all three years. All sources of cost-sharing shall be thoroughly described and documented.
- The budget will be evaluated based upon the clarity and reasonableness of the funding request. A budget narrative shall be included that discusses relevant budgetary issues such as the extent and level of jurisdiction, industrial, and institutional commitment and financial support, including resources (staff, facilities, laboratories, indirect support, waiver of indirect costs, etc.).
- If you need any guidance with your budget, we recommend you contact your institution's Sponsored Projects Accounting office and your Research Administration Services office.