To: Distribution List

From: Faculty Research Development Office (FRDO)
           Office of the Vice President for Research

Subject: Limited Competition: NSF Advanced Computing Systems & Services: Adapting to the Rapid Evolution of
           Science and Engineering Research (NSF 23-518)

Date: June 21, 2023

UNM Researchers,

Following the Category 1 opportunity earlier this year, the **NSF Advanced Computing Systems & Services: Adapting to the Rapid Evolution of Science and Engineering Research** program now requests **Category II, Innovative Prototypes/Testbeds** proposals from organizations who are willing to serve as resource providers within the NSF Advanced Computing Systems and Services (ACSS) program. Resources proposed in this category will be initially deployed as a prototype/testbed supporting S&E research through delivery of novel forward-looking capabilities and services. Resources proposed in this category can represent the deployment of new technologies, system architectures, or usage modalities at scale, with plans for developing a national S&E user community that will benefit from the proposed capabilities.

Proposed resources could encompass a broad range from enabling advancements in traditional computing architectures and extending to emerging non von Neuman computing paradigms. The former could include novel processor architectures supporting artificial intelligence applications or integration of distributed systems leveraging edge devices; domain-specific architectures; reconfigurable and/or software defined systems; systems designed for streaming data and/or real-time processing. The latter could apply aspects of neural and broader levels of non-neural biological organization architectures or implement collective properties of quantum states. Proposers are further encouraged to potentially explore novel facility scale electric power infrastructure, including models, leading to significant efficiencies in compute-center and edge-scale power utilization. Additionally, the solicitation incents efforts to explore and assess comprehensive and effective future options for science-based responses to a potential future national and/or international urgent need, as well as towards opportunities for future AI-enabled breakthroughs in science, engineering, and technology.

The NSF is ONLY accepting applications for Category 2 projects. The NSF deadline is **October 31, 2023**. Go to https://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=503148&ods_key=nsf23518 for full details.

It is anticipated that 1-4 Category 2 awards will be made at up to $5M/award for up to 5 years. User support and operating costs are expected to be up to 20% of the total resource acquisition cost per year for each deployed system/service. Should the proposed resource require additional user and operating funds, an additional 5% may be requested accompanied by a strong justification for the request. User support and operating costs will be provided as a separate supplement to the awarded cooperative agreement.

This is a limited competition. Each institution is limited to ONE Category 2 application. If you are interested, please submit a Statement of Interest with a tentative project title and a brief description (200 words) by **NOON on July 11, 2023** via UNM's InfoReady Review Portal. No late submissions will be accepted. Based on the number of responses received, the Limited Competitions Management Team may announce a call for pre-proposals.

Should you have any questions please contact limited@unm.edu.

If you are affiliated with HSC, please contact HSC Limited Competition at HSC-LimitedComps@salud.unm.edu for more information.