

This message is intended for faculty contemplating applying to the National Science Foundation's Towards a Leadership-Class Computing Facility (Phase 1) program.

NSF invites proposals for the acquisition and deployment of a High Performance Computing (HPC) system, called the Phase 1 system, with the option of a possible future upgrade to a leadership-class computing facility. The Phase 1 system will serve two important and complementary purposes:

1. It will serve as a robust, well-balanced, and forward-looking computational asset for a broad range of research topics for which advances in fundamental understanding require the most extreme computational and data analysis capabilities; and
2. It will serve as an evaluation platform for testing and demonstrating the feasibility of an upgrade to a leadership-class facility five years following deployment.

A competitive proposal in response to this solicitation will have the following five characteristics:

1. A detailed acquisition plan for deploying a reliable and well-balanced HPC system with at least two- to three-fold time-to-solution performance improvement over the current state of the art, the University of Illinois at Urbana-Champaign's (UIUC) Blue Waters system, for a broad range of existing and emerging computational and data intensive applications;
2. A thorough operations plan for the Phase 1 system to ensure that it will serve as an effective computational tool for the broad scientific and engineering community, and for the Nation at large;
3. A detailed three- to five-year project plan for scientific and technical evaluation of the Phase 1 system that will lead to an upgrade design of a leadership-class system, called the Phase 2 system, as well as the physical facility that will host it: the Phase 2 system is expected to have a ten-fold or more time-to-solution performance improvement over the Phase 1 system;
4. Clear and compelling science and engineering use cases, as well as detailed strategic project goals for a leadership-class computing facility; and
5. A persuasive articulation of educational and industry outreach, and the achievement of other broader societal impact goals, in the long-term strategic plan for the leadership-class computing facility.

LIMIT ON NUMBER OF PROPOSALS PER ORGANIZATION: An organization may submit only one proposal, but may be identified as sub-awardee on other proposals responding to this solicitation. The restriction to no more than one submitted proposal as lead institution is to help ensure that there is appropriate institutional commitment necessary for responsible oversight, by the potential awardee institution, of a national resource.

Collaborative projects may only be submitted as a single proposal in which a single award is being requested. The involvement of partner organizations should be supported through sub-awards administered by the submitting organization.

LIMIT ON NUMBER OF PROPOSALS PER PI OR CO-PI:

An individual may be the PI or co-PI on no more than one proposal that responds to this solicitation. There is no limit on the number of proposals with which an individual may be associated in other capacities.

DEADLINE FOR LETTER OF INTENT (REQUIRED): JULY 14, 2017

DEADLINE FOR FULL PROPOSALS: NOVEMBER 20, 2017

Because of the above restrictions, Research and Sponsored Programs is requesting that all those interested in applying to the NSF INCLUDES competition submit an abstract for their project to Deborah Lundin by **Thursday, June 15**. This will enable us to ensure that the University does not submit more than the allotted amount of proposals for our institution. If the number of abstracts we receive exceeds the number of proposals we are allowed to submit, we will advise the relevant faculty on how a nomination selection will be determined and how to proceed with the submission of the proposal.

You may download the complete program description and application guidelines at https://www.nsf.gov/publications/pub_summ.jsp?org=NSF&ods_key=nsf17558. If you have any questions about the program or nominating procedure, you may contact our office at ext. 2425.