

within the United States, which have research and educational programs in plasma science. The Center is expected, and encouraged, to participate in collaborations with other research institutions. The FSC is envisioned to combine the expertise and approaches of national laboratories and universities. However, since the thrust of this initiative is for university-based institutions, any participation of a (FFRDC), including a Department of Energy National Laboratory, should be limited to no more than 20 percent of the Center funding.

Cost Sharing

The host institution is required to provide at least 15 percent matching funds for the Center.

Application Process

Applicants are requested to submit a letter-of-intent as stated above. Applicants will be required to submit a detailed Preliminary Application that will be reviewed by a panel of experts. Following the review of the Preliminary Application, applicants may be invited to submit a Full Application. The Full Application will receive an extensive review which may include oral presentations by the Principal Investigator and his collaborators.

Letter-of-Intent

Letters-of-intent must include the title of the application, the name of the Principal Investigator(s), the requested funding and a one-page abstract. These letters-of-intent will be used to organize and expedite review processes. Failure to submit a letter-of-intent will not negatively prejudice a responsive formal application submitted in a timely fashion.

Preliminary Application

The Preliminary Application should consist of a description of the research proposed to be undertaken by the Fusion Science Center including a clear explanation of its importance to the advancement of fusion plasma science. The Preliminary Application should be limited to a maximum of 30 pages (including text and figures) of technical information. It should briefly describe the institutional setting of the FSC, its proposed scope and organization, activities in research and education and their integration, development of human resources and shared experimental facilities, links with related major research centers, on campus or off campus, and a management plan. The application should emphasize the synergy of collaborations that will be facilitated by the Center. A clear case

should be made that the Center's research program will contribute more to the advancement of fusion plasma science than would be expected from the independent efforts of its individual investigators. Also included should be a description of educational activities that will be an integral part of the Center's research program and other information necessary for a concise overview of the FSC activities. The FSC application should describe proposed efforts to communicate concepts, methods, tools, and results to the wider world of science in order to raise awareness of the fusion science community's scientific accomplishments.

Full Application

The Department of Energy will accept Full Applications for a Fusion Science Center by invitation only, based upon the results of an evaluation of the Preliminary Application. The Full Application should consist of a more detailed description of the material contained in the Preliminary Application. The Full Application may be modified in response to the reviewers' comments concerning the Preliminary Application. The review process for the Full Application may also include oral presentations, made to a review panel, by the proposed Center's key people.

Program Funding

It is anticipated that about \$2,000,000 of Fiscal Year 2004 funding will be available to fund one or two new Fusion Science Centers from applications received in response to this Notice. Because future year funding is not anticipated to increase, applications should propose constant effort in future years (allowing for inflation). Future year funding will depend upon suitable progress and the availability of funds. The cost-effectiveness of the application will be considered when comparing applications with differing funding requirements.

Merit Review

Applications will be subjected to formal merit review and will be evaluated against the following criteria, which are listed in descending order of importance as set forth in 10 CFR part 605.

1. Scientific and/or technical merit of the project,
2. Appropriateness of the proposed method or approach,
3. Competency of the applicant's personnel and adequacy of the proposed resources,
4. Reasonableness and appropriateness of the proposed budget.

The Office of Fusion Energy Sciences will also consider, as part of the evaluation, other available advice or information as well as program policy factors, such as ensuring an appropriate balance among and within the program areas, ensuring support for major computational efforts, ensuring support for experiments, and quality of previous performance.

Additional Review Criteria

In order to encourage innovation and originality in the application, preconceived specifications are being kept to a minimum in this announcement. A proposal for a center should have a plan to identify, pose, and answer scientific questions of widely recognized importance. In all cases, however, a Center's application should demonstrate that the whole of the Center's effort will be substantially greater than the sum of its parts. Attention will be paid to the management plan, which should include a description of how the FSC will operate. The plan should also describe proposed activities that will be undertaken to enhance connectivity between the Center and the broad scientific community.

In addition to the information required by 10 CFR part 605 each application should contain the following items: (1) A succinct statement of the goal of the research, (2) a detailed research plan, (3) the specific results expected at the end of the project period, (4) an analysis of the adequacy of the budget, (5) a discussion of the impact of the proposed research on other fields of science, and (6) for projects requiring significant computational resources (e.g., at the National Energy Research Scientific Computing Center), an estimate and justification of the resources that will be required.

With respect to the enhanced productivity that one would expect from the synergy of a Center, additional review criteria are:

- (1) Clear evidence of collaborative work.
- (2) The extent to which the group addresses difficult problems requiring a team effort.
- (3) Clear evidence of scientific leadership.
- (4) The extent to which the management will evaluate the relevance and scientific impact of the group's work.

Selection of applications for award will be based upon the findings of the technical evaluations, the importance and relevance of the proposed research