Office of Science
Financial Assistance
Funding Opportunity Announcement
DE-PS02-06ER06-14

Department of Energy
Experimental Program to Stimulate Competitive Research
(DOE/EPSCoR) Implementation Awards

The Office of Basic Energy Sciences (BES) of the Office of Science (SC), U.S. Department of Energy (DOE), in keeping with its energy-related mission to assist in strengthening the Nation's scientific research enterprise through the support of science, engineering, and mathematics, announces its interest in receiving applications from eligible States for the support of the DOE/EPSCoR program. The purpose of the DOE/EPSCoR program is to enhance the capabilities of designated States to conduct nationally-competitive energy- related research and to develop science and engineering human resources in energy- related areas to meet current and future needs.

APPLICATION DUE DATE: September 27, 2006, 8:00 pm Eastern Time

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Applications must be submitted using Grants.gov, the Funding Opportunity Announcement can be found using the CFDA number, 81.049 or the Funding Opportunity Announcement number, DE-PS02-06ER06-14. Applicants must follow the instructions and use the forms provded on Grants.gov.

TECHNICAL DESCRIPTION

To continue to enhance the competitiveness of states and territories identified for participation in the Experimental Program to Stimulate Competitive Research (EPSCoR) by the National Science Foundation (NSF), DOE has decided to again restrict eligibility to the following states and territory: Alabama, Alaska, Arkansas, Delaware, Hawaii, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Vermont, West Virginia, Wyoming, the Commonwealth of Puerto Rico, and US Virgin Islands. An appropriate fiscal agent, acting on behalf of a state's EPSCoR Committee, may submit only one application in response to this program notice. Each application is restricted to one research "cluster." A cluster is defined as a group of scientists working on a common scientific theme. It is the DOE/EPSCoR program policy to limit the Research Implementation Awards to one active award per state.

Therefore, only those EPSCoR states that have: (1) not received a previous DOE/EPSCoR Research Implementation Awards, or (2) "graduated" their previously supported Research Implementation Awards research clusters, or (3) received final funding for their Research Implementation Awards in Fiscal Year 2006, are eligible to apply for Fiscal Year 2007 funding. Thus, only the following states are eligible to apply under this notice: Alabama, Alaska, Arkansas, Delaware, Hawaii, Idaho, Kansas, Kentucky, Maine, Mississippi, Montana, Nebraska, New Hampshire, New Mexico, Rhode Island, South Dakota, Vermont, Wyoming, the Commonwealth of Puerto Rico, and US Virgin Islands. Awards issued under this Notice will provide funding for basic research, its coordination, and development of human resources in the state. The DOE/EPSCoR Research Implementation Awards should be used to improve the academic research infrastructure of key science and technology areas identified by the state's EPSCoR governing committee as critical to the development of state and institutional research and development capability. The state's strategy to develop and utilize the scientific and technological resources that reside in its research universities should be described in its DOE/EPSCoR Research Implementation Awards application. In preparation for submitting an application, the EPSCoR governing committee within each state is expected to have undertaken a comprehensive analysis of the strengths, weaknesses, and opportunities for development of its research institutions in support of overall state research and development objectives. Successful infrastructure improvement plans are likely to be those which are focused on one energy-related research area and which candidly represent the opportunities for enhanced academic R&D competitiveness, including the acquisition of sustained non-EPSCoR support. Most important, the state's infrastructure improvement strategy must have a high probability of realizing stated goals and objectives as judged by members of a DOE merit review panel. In all instances, performance milestones and a timetable for achieving such milestones are prerequisites for EPSCoR support. Priority will be given to applications that propose to develop new research areas rather than those that propose to enhance or continue research areas that have previously been funded under EPSCoR. Applications proposing similar work funded under previous implementation will not be considered. The DOE/EPSCoR Research Implementation Awards are not appropriate mechanisms to provide support for individual faculty science and technology research projects.

DOE Research Programs General Information

The DOE/EPSCoR Research Implementation Awards are open to the entire range of energy-related disciplines supported by DOE. Additional information on the DOE Research Programs is available at the following website addresses:

Department of Energy (General Information):
http://www.energy.gov/
Office of Science:
http://www.science.doe.gov/
Basic Energy Sciences:
http://www.science.doe.gov/feature/BES.htm
Biological and Environmental Research:
http://www.science.doe.gov/feature/BER.htm
Advanced Scientific Computing Research:

http://www.science.doe.gov/feature/ASCR.htm
Fusion Energy Sciences:
http://www.science.doe.gov/feature/fes.htm
High Energy Physics:
http://www.science.doe.gov/feature/HEP.htm
Nuclear Physics:
http://www.science.doe.gov/feature/NP.htm
Office of Defense Programs:
http://www.nnsa.doe.gov/
Office of Energy Efficiency and Renewable Energy:
http://www.eere.doe.gov
Office of Fossil Energy:
http://www.fe.doe.gov
Office of Environmental Management:
http://www.em.doe.gov
Office of Civilian Radioactive Waste Management:
http://www.rw.doe.gov
Office of Nuclear Energy:
http://www.ne.doe.gov

EPSCoR Application Guidelines

This section contains specific guidance for the preparation of the DOE/EPSCoR Research Implementation applications. The application must include a brief description of research cluster and how the program coordination and human resource development is integrated with the research cluster. DOE reserves the right to reject applications that do not comply with the specified format.

Each research cluster must be responsive to a DOE programmatic technical research area of interest. The DOE office and the name and contact information including E-mail of the program manager (This is not the EPSCoR program manager.) responsible for the programmatic technical research area for the proposed research cluster must be identified in the application.

Research involving human subjects or animals must adhere to the guidance detailed in Section 8. "Human Subjects and Animal Welfare". http://www.science.doe.gov/grants/Welfare.html

The lead organization may submit only one application that includes another organization as a lower-tier participant (sub-award) who will be responsible for a smaller portion of the overall project. If approved for funding, DOE will provide the total project funds to the lead organization that will provide funding to the other participant via a subcontract arrangement. The application should clearly describe the role to be played by each organization, specify the managerial arrangements and explain the advantages of the multi-organizational effort. Principal investigator (PI) has to be a person designated by the state EPSCoR committee, preferably state DOE EPSCoR director, with scientific co-PIs clearly identified.

Application Checklist (Not to be included with the application)

__ 1. Table of Contents
__ 2. Abstract of Research Cluster, program coordination and human resource development (150 words maximum)
__ 3. Tables of DOE/EPSCoR Program Impacts for the Research Cluster
__ 4. Description of the Proposed Research Cluster and Projects, including literature references and figures (25 pages maximum).
__ 5. Table of Research Cluster Milestones and Activities Target Dates.
__ 6. Background and research experience of Principal Investigator(s) and Other Senior Personnel for the Research Cluster and Projects (one page per person) including full contact information.
__ 7. Application must include a detailed Cost Share Budget, the cost share amount must be included in the column on the budget form entitled Non-Federal ($).

GUIDELINES FOR THE PREPARATION OF THE APPICATION

The proposed research program is to be described in terms of research cluster composed of specific research projects. [Note: A research cluster is an energy-related technical area identified by the state with potential for increased competitive strength. The research cluster may target one or more academic disciplines related to a specific DOE technical research program area, but should share a common research focus. A research project is an individual project supporting an identified research cluster. All the projects within a research cluster must have a common DOE programmatic research focus and have significant collaborative interaction among the project's staff]. A research cluster must have multiple Principal Investigators or Co-principal Investigators.

The research plan may include, but is not limited to, the following activities:

1. Enhancement of an energy-related research cluster in science, engineering and mathematics with the potential to sustain nationally competitive levels of federal R&D funding.

2. Collaborative research among state institutions and major research institutions, DOE laboratories, other government laboratories, and industry. [Note: The term collaborative research refers to partnerships and cooperative linkages forged among two or more research-oriented organizations. The partnership among institutions is an integral part of the overall research cluster. Strong applications will also demonstrate knowledge of how to access DOE laboratories and other energy-related research facilities and will include laboratory and industry research professionals as collaborators and/or as members of advisory, oversight, and review panels/committees].

3. Innovative approaches to knowledge transfer that will strengthen the state's competitive position in energy-related science and technology. <u>DOE/EPSCoR support must not be used to simply maintain current activities at the same qualitative and quantitative levels, but rather to develop new approaches that will demonstrably enhance the quality and competitiveness of the state's academic research enterprise.</u>

Proposed research cluster must (1) add value to the state's existing research capabilities (i.e., stimulate systemic change rather than merely provide support for existing programs, however excellent they may be), (2) continue beyond the award period, (3) must not propose research already funded under previous implementation grant, and (4) produce demonstrated achievements during the course of the award. The DOE/EPSCoR program is intended to provide funds toward independent, self-sustaining research efforts.

The Project Narrative must follow the following outline:

1. Table of Contents

2. Abstract of Research Cluster, program coordination and human resource development (150 words maximum)

a. Research cluster/project number and title.

b. DOE technical research program area(s) of interest.

c. The specific objectives of the cluster and projects, and relationship to the state's DOE/EPSCoR plan and how the program coordination and human resource development is integrated with the proposed research activity.

d. Description of the content of the research activity and its value to the DOE programmatic area of interest and to the state's DOE/EPSCoR plan.

e. Collaborative efforts with DOE laboratories, other laboratories and research institutions, the private sector, and/or government agencies, including contact information.

3. Table of DOE/EPSCoR Program Impacts for Research Cluster

a. Part one provides a list of the specific projects within the cluster with the following information for each project: (1) project title, (2) the DOE technical program area and responsible program manager and his/her phone, E-mail, and office within DOE.

b. Part two is a list of the institutions having personnel involved in the research cluster and, for each institution, the number involved: (1) faculty, (2) undergraduate students, (3) graduate students, (4) postgraduate associates, (5) precollege teachers, and (6) precollege students.

c. Part three is a list of equipment (with an acquisition cost of more than $5,000) to be purchased with DOE/EPSCoR and/or matching funds for use in the research cluster. The list contains: (1) the name of the piece of equipment, (2) the project(s) within the cluster that will use the equipment, (3) the quantity to be

purchased, (4) the unit cost of the equipment, (5) the amount of the cost from DOE/EPSCoR funds, and (6) the amount of the cost from matching funds.

d. Part four is lists of all currently funded research projects and pending applications for all the Principal Investigators and other senior staff involved in the cluster. For each research staff member with currently funded or pending research projects, provide for each project: (1) the funding agency, (2) grant/contract or proposal number, (3) title of the grant/contract or proposal (4) principal investigator's name and institution, (5) grant/contract or proposal start date and termination date, (6) total award value, and (7) funding agency Program Manager's name, telephone, number, and E-mail.

4. Description of the Proposed Research Cluster, program coordination and human resource development (maximum of 25 pages). First, provide an overview of the research cluster. Next, provide a description of each project within the cluster. Additionally,

a. Provide a discussion of: (1) how the research cluster relates to the state's DOE/EPSCoR goals including the anticipated long-term impacts on the relevant academic disciplines, institutions, and the state; (2) how it relates to a DOE technical research program; (3) the relationship of the research cluster to state and institutional plans for improved R&D competitiveness; and (4) the integration of program coordination and human resource development within the proposed research activities.

b. Provide information on the cluster for personnel, equipment, and facilities. Discuss the staffing assigned to DOE/EPSCoR research faculty, postgraduates, graduate students, undergraduate students, and other personnel. Include a discussion of under- represented minorities, women, and the disabled.

c. Provide information of each item of equipment to be purchased with DOE/EPSCoR funds (or matching funds) with current acquisition costs more than $5,000. Applicants requesting funds for equipment are encouraged to propose collective use instruments where that is reasonable. The application must indicate how the support will be provided, including service contracts, to ensure that the equipment is maintained in adequate working order.

Discuss the major research facilities to be used by the research cluster. Discuss both existing and planned expansions in personnel, equipment, and facilities and include the planned expansions in the milestones.

d. Provide a brief summary of baseline information about currently funded or pending research projects directly related to the cluster for the Principal Investigator(s) and other senior research staff at each institution involved in the cluster. Include any ongoing or pending grants or contracts for workshops, education or training projects, facilities, and instrumentation that are directly related to the cluster.

e. Provide a full description of each individual project within the cluster. Include the research value and contribution to the cluster; research background, methodology, innovative approaches, and relationship to the focus of the cluster; information on staffing, equipment, milestones with target dates for the project.

f. Discuss the strategies that will be developed to ensure self-sustainability of the research activities beyond the award period.

5. Table of Research Cluster Milestones and Target Dates

Provide a list of technical and infrastructure milestones for the cluster. The infrastructure milestones should address the activities within the research cluster related to DOE/EPSCoR program coordination activities, or to enhancements in human resources, equipment, facilities, etc.

6. Provide one-page vita for the principal investigator(s) and other senior staff involved, arranged by degree of participation - these vitae are not included in the 25-page total. Vita should contain background, research experience, and contact information of principal Investigator(s) and other senior personnel for the research cluster.

7. Application must include a detailed Cost Share Budget, each year on a separate sheet and attach it on the Budget form as the last page of your budget justification.

EVALUATION OF APPLICATIONS

The DOE/EPSCoR Research Implementation Award application will undergo an administrative review and a series of merit reviews. The administrative review of the application will be performed by DOE staff and will check the applications for compliance to the specified format. DOE reserves the right to reject applications which are not complete or do not comply with the specified format. The administrative review will also include a programmatic relevance and priority review by DOE technical staff.

Panel and/or postal reviews will be used to evaluate the scientific merit of the various elements of the DOE/EPSCoR applications. The evaluation will include program policy factors, such as the relevance of the proposed research to the terms of the announcement and the agency's programmatic needs. Applications will also be reviewed by relevant program offices to determine the priority of research. Program offices will also be asked for their willingness to provide co-funding if a project is selected for approval. Note: External peer reviewers are selected with regard to both their scientific expertise and the absence of conflict-of-interest issues. Non-Federal reviewers will often be used, and submission of an application constitutes agreement that this is acceptable to the investigator(s) and the submitting institution. All projects will be evaluated using the same criteria, regardless of the submitting institution.

A summary review will use input from the other reviews while focusing on the integration, cooperation, and collaboration aspects of the application and, specifically, on how well the application fits together as a total package to meet DOE/EPSCoR program objectives. DOE

reserves the right to conduct either a site review or a reverse site review of the proposed efforts of the highly ranked applications prior to award decisions. DOE/EPSCoR staff will consider all of the reviewer comments prior to making the final award recommendations.

Posted on the Office of Science Grants and Contracts Web Site
March 29, 2006.