Office of Science
Financial Assistance
Funding Opportunity Announcement
DE-PS02-08ER08-04

Experimental Program to Stimulate Competitive Research (DOE EPSCoR) Implementation Awards

The U. S. Department of Energy's Experimental Program to Stimulate Competitive Research (DOE EPSCoR) is a federal-state partnership program designed to help the Department lead the world in meeting today's and tomorrow's energy needs through increased competition in energy-related research and development across the entire nation. Positioned within the Department's Office of Basic Energy Sciences (BES) in the Office of Science (SC), and supporting basic and applied research and development across a wide range of interdisciplinary Department Program Offices, the DOE EPSCoR program hereby announces its interest in receiving grant applications for its Implementation Awards program between academic or industrial researchers from states and territories eligible for the program. Specifically, applications are sought for improvement of the state's academic research infrastructure in key science and technology energy-related areas identified by the state's EPSCoR governing committee. Awards under this program are meant to support a group of scientists and researchers working on a common scientific theme across the state, and are not appropriate mechanisms to provide support for individual faculty science and technology research projects. States eligible for this Notice are Alabama, Alaska, Arkansas, Hawaii, Kansas, Mississippi, Montana, Nebraska, New Mexico, Rhode Island, South Dakota, Vermont, Wyoming, the Commonwealth of Puerto Rico, and U.S. Virgin Islands.

Tennessee became eligible for participation in the DOE EPSCoR program October 5, 2007, and therefore is now eligible to apply for this Notice. Please see the new EPSCoR eligibility criteria tables for FY 2007 at http://www.nsf.gov/od/oia/programs/epscor/Eligibility-FY2007.pdf.

APPLICATION DUE DATE: January 25, 2008, 8:00 p.m. Eastern Time

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-PS02-08ER08-04. Applicants must follow the instructions and use the forms provided on Grants.gov.

GENERAL INQUIRIES ABOUT THIS NOTICE SHOULD BE DIRECTED TO:

Agency Contact:

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SUPPLEMENTARY INFORMATION:

The U.S. Department of Energy's Experimental Program to Stimulate Competitive Research (DOE EPSCoR) is a federal-state partnership program designed to enhance the capabilities of designated states and territories to conduct sustainable and nationally competitive energy-related research. The program aims to build science and technology infrastructure across the Nation through support of a broader geographical distribution of research and development capacity, increased human and technical resources, and training of scientists and engineers. DOE EPSCoR supports the Agency's overarching mission by supporting basic and applied research and development across a wide range of interdisciplinary program office and topical areas across the Department, including but not restricted to: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics and Nuclear Physics, in the Office of Science, and may support research from other DOE Program Offices including Office of Civilian Radioactive Waste Management, Office of Electricity Delivery and Energy Reliability, Office of Energy Efficiency & Renewable Energy, Office of Environmental Management, Office of Fossil Energy, Office of Legacy Management, and Office of Nuclear Energy. DOE EPSCoR manages a research portfolio that supports fundamental research programs for example in basic energy sciences, biological and environmental sciences, computational science, high energy and fusion sciences, materials and chemical sciences, climate change, geophysics, genomics, life sciences, defense programs and science education. To continue to enhance the competitiveness of states and territories in energy-related research for the nation, DOE EPSCoR restricts eligibility of a state or territory based on the National Science Foundation (NSF) eligibility criteria. For more information on eligibility, see (http://www.nsf.gov/od/oia/programs/epscor/eligible.jsp). To further competitiveness, it is the DOE EPSCoR program policy that:

- There shall be only one active Implementation Award per state at one time.
- Active DOE EPSCoR Implementation Awards are ineligible for this Notice.
- There shall be only one application submission per state (or, an appropriate fiscal agent, acting on behalf of a state's EPSCoR Committee).
- If a state has received or will receive final funding for an Implementation Award in Fiscal Year 2007, that state is eligible for Fiscal year 2008 funding and may apply to this Notice.

Thus, only the following states and territories are eligible to apply under this Notice: **Alabama, Alaska, Arkansas, Hawaii, Kansas, Mississippi, Montana, Nebraska, New Mexico, Rhode Island, South Dakota, Tennessee, Vermont, Wyoming, the Commonwealth of Puerto Rico, and U.S. Virgin Islands.**

In preparation for submitting an application, the state's EPSCoR governing committee 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. Applications for this Notice should include the state's strategy to

develop and utilize the scientific and technological resources that reside in its research universities and state industrial or economic resources. Successful awards are likely to be those that are focused on one energy-related research area bringing together multiple researchers. The successful applications will candidly represent the opportunities for enhanced academic research and development competitiveness for the state, including the acquisition of sustained non-EPSCoR support. 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. It is critical for success of application that a coordinated effort in managing multiple investigators working on a common theme be demonstrated at submission. In all instances, performance milestones and a timetable for achieving project goals and deliverables are prerequisites for DOE EPSCoR support. It is highly recommended that the topical research area be identified in the proposal with respect to the relevant DOE Program Office (listed below) and the Office's specific program goals. The relevant program office (and associated program manager if known) must be identified in the application narrative to be considered for EPSCoR support. If the Program Office is unknown, please contact the DOE EPSCoR office. Applications are open to the entire range of energy related disciplines supported by DOE across the Department Program Offices for basic and applied research. 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

The objectives of the DOE Implementation Awards are to:

- Improve the capability of the designated state or territory to conduct sustainable and nationally competitive energy-related research.
- Support a group of scientists working on a common scientific theme across the state. (These awards are not meant to support individual faculty working on individual science and technology themes).
- Jumpstart infrastructure development in the designated state or territory through increased human and technical resources.
- Promote partnering with other universities, industry and national laboratories with strong participation by students, postdoctoral fellows, and young faculty from EPSCoR states.

Though not required for application, it is recommended that Implementation Awards work toward building beneficial relationships of the designated state or territory with the 10 world-class laboratories managed by the Office of Science, leveraging DOE national user facilities and increasing intellectual collaboration. 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 Awards will not be considered.

Funding, Co-funding and Indirect costs:

All DOE funding under this Notice shall reside within the EPSCoR designated state or territory, and no funds shall be allowed to DOE Laboratory partnering personnel.

- Maximum period of funding is six years with an initial grant period of three years.
- Maximum funding is $750,000 per year.
- Fifty percent state (non-federal source) cost match of proposed budget is required.

For DOE: Explain the basis for each overhead and indirect cost. Include the current rate. (use form OMB Number 4040-0001). Budget justification required.

For Non-Federal: Explain the basis for each overhead and indirect cost. Include the current rate. Budget justification highly recommended.

Subcontracts:

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 an organization is approved for funding, DOE will provide the total DOE project funds to the lead organization that will provide funding to the other participant(s) 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. The Principal investigator (PI) has to be a person designated by the state EPSCoR committee, and in consultation with the DOE EPSCoR state director. It is recommended that the PI be the lead technical director for the application (from the lead

institution or organization) with a specified lead Project Administrator, preferably the DOE EPSCoR state director, to work with the PI to manage the award.

Program Funding

Subject to Congressional authorization and approval of funds in Fiscal Year 2008, DOE anticipates an estimated $1 million will be available for awards to fund collaborative research and human resource development in energy-related science and engineering disciplines. Approximately one or two awards are anticipated in Fiscal Year 2008, at a maximum award level of $750,000 per year for a period of three years. **DOE EPSCoR funding will not be provided to the National Laboratories or non-designated EPSCoR states.** Continuation funding for the awards will be contingent upon the availability of appropriated funds, progress of the research, and continuing program need. Renewal applications for implementation awards beyond the initial three-year period will be considered for an additional three years, subject to continuing meritorious performance and progress in the previous award periods, as well as the value added of the proposed effort and the availability of funds. As a tangible measure of an applicant's commitment to the objectives of the DOE EPSCoR program, minimum cost sharing in the amount of 50% of the DOE share of the total budget is required from non-Federal sources, e.g., DOE $750,000/year and Recipient $375,000/year. Therefore, each application submitted requesting support from DOE under this Notice must provide, from non-Federal funds, an amount half or greater than the amount awarded by DOE.

Merit Review

Applications will be subjected to scientific merit review (peer review) and will be evaluated against the following evaluation criteria which are listed in descending order of importance codified at 10 CFR 605.10(d):

1. Scientific and/or Technical Merit of the Project;
2. Appropriateness of the Proposed Method or Approach;
3. Competency of Applicant's Personnel and Adequacy of Proposed Resources; and
4. Reasonableness and Appropriateness of the Proposed Budget.

The evaluation process will include program policy factors such as the relevance of the proposed research to the terms of the announcement and the agencies' programmatic needs. Note that external peer reviewers are selected with regard to both their scientific expertise and the absence of conflict-of-interest issues. Both Federal and non-Federal reviewers may be used, and submission of an application constitutes agreement that this is acceptable to the investigator(s) and the submitting institution.

Submission Information

The following is a list of essential items that an application must contain:

i. The Cover sheet SF 424 (R & R) - completed by appropriate officials.

ii. Research and Related Budget pages (s) (OMB Number 4040-0001) using U.S. dollars, with supporting written justification sufficient to evaluate the costs of the proposed project. **DOE EPSCoR Implementation Awards require a cost match from a non- federal source of 50% of the proposed budget.** List and explain cost sharing arrangements. Cost sharing budgets should be itemized and justified by year but do not require the OMB 4040-0001 form. If the application is for a multi-year project, submit a cumulative budget and one budget page for each year of requested support. Cost share may include indirect costs.

iii. Research & Related Other Project Information:

a. Project Narrative: A detailed description of the proposed research project, including the technical objective of the project, its relationship to one or more DOE Office and technical program interests. The proposed research should be described in terms of a unified research theme composed of specific research sub-projects. [Note: A research theme is an energy-related technical area identified by the state with potential for increased competitive strength. The research theme may target one or more academic disciplines related to a specific DOE technical research program area, but should share a common research focus.] All the sub-projects within a research project must support the research project theme and have significant collaborative interaction among the project's collaborators]. The project narrative should include a description of the project's integration with the state EPSCoR Office's R & D plans, the mechanism for program coordination, infrastructure building and human resource development.

b. Biographical Sketches: Detailed information about the background and experience of the principle investigators(s) inducing references to publications.

c. Facilities and Resources: Include information on the experience of the applicant organization, its facilities and resources.

d. Bibliography of Literature (References).

e. A list of all currently funded research projects and pending applications for all the Principal Investigator(s) and other senior staff involved in the project. 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.

In addition, for the FOA, applications must conform to the following requirements:

f. The Project Narrative comprises the research plan for the project and is limited, including text, figures legends and tables, to **25 pages maximum (8.5 x 11- inch pages of single spaced standard 11-point type with 1-inch margin pages), exclusive of attachments such as references or cirrculum vitae.** It should contain enough background material in the Introduction, including review of the relevant literature, to demonstrate sufficient knowledge of the state of the proposed science and its technical

merit. The major part of the narrative should be devoted to a description and justification of the proposed project, including details of the methods to be used, and referring to infrastructure building for the state or territory. It should also indicate which project personnel will be responsible for each of the activities/sub-projects, and how these persons and projects will be managed as an integrated and unified research project. The research project may include, but is not limited to, the following activities:

- Enhancement of energy-related research in science, engineering and mathematics with the potential to sustain nationally competitive levels of federal R&D funding.
- 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.]
- Partnership among institutions that demonstrate knowledge of how to access DOE laboratories and other energy-related research facilities and may include laboratory and industry research professionals as collaborators and/or as members of advisory, oversight, and review panels/committees.
- Innovative approaches to knowledge and technology transfer that will strengthen the state's competitive position in energy-related science and technology.
- Novel research and approaches that will demonstrably enhance the quality and competitiveness of the state's academic research enterprise.

g. Inclusion of an abstract or project summary (not to exceed 500 words) on a separate page. The page should also include the name of the applicant, title of application, mailing address, phone number and FAX number and E-mail.

h. Inclusion of a Table of Contents.

i. Inclusion of a table of research project milestones and activities with planned target dates with respect to the project theme and all sub-projects. Program coordination activities, or enhancements in human resources, equipment, facilities, etc. may also be listed in the table.

j. Inclusion of Letters of Intent from collaborators (briefly describing the intended contribution of each to the research), and short curriculum vitaes for the applicant, co-PIs, and collaborators. Each curriculum vita should be not exceed one page. Letters of Intent or support, and curriculum vitae are considered outside the 25 page maximum of the Project Narrative.

k. Inclusion of a Conflict of Interest Document (no page limit). This document should be provide in table or spread sheet form only as an appendix to the full application at the time of submission. The document should consist of a list in the form of a single **alphabetized** table with the full names (last name, first name, middle initial) of all people having a conflict of interest with any senior personnel (PI- and co-PIs, and any named personnel member whose salary is requested in the project budget). Conflicts to be identified are (1) PhD. thesis advisees, (2) collaborators or co-authors for the past 48

months, and (3) any other individuals or organizations with which the investigator has financial ties (please specify type). Members of current Advisory Committees who receive reimbursement for travel or honoraria should be included in this last category.

l. Inclusion of a plan that describes how the project results or resources will be disseminated in a timely manner and in an accessible and usable form for the broad scientific community. This should be integrated with the table of research project milestones and activities.

m. Inclusion of a letter of support from the State EPSCoR Office.

The Project Narrative must also follow the following list items (may be appended outside the 25 page limit):

a. 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) pre-college teachers, and (6) pre-college students. Please include a discussion of under-represented minorities, women, and the disabled, along with minority institutions supported with the application.

b. 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 should contains: (1) the name of the piece of equipment, (2) the subproject(s) within the project 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.

The Catalog of Federal Domestic Assistance (CFDA) number for this program is 81.049, and the solicitation control number is ERFAP 10 CFR Part 605.

Posted on the Office of Science Grants and Contracts Web Site
October 4, 2007.