

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



U.S. Department of Energy

**Office of Science
Office of Basic Energy Sciences**

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

Funding Opportunity Number: DE-PS02-06ER06-14

Announcement Type: Initial

CFDA Number: 81.049

ISSUE DATE: March 29, 2006

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

**PROGRAM MANAGER: Dr. Aravinda Kini
Materials Sciences and Engineering Division**

PHONE: (301) 903-3565

E-MAIL:

aravinda.kini@science.doe.gov

NOTE: NEW REQUIREMENTS FOR GRANTS.GOV

Where to Submit: Applications must be submitted through Grants.gov to be considered for award.

Registration Requirements: There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See www.grants.gov/GetStarted. Use the Grants.gov Organization Registration Checklist at www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at least 14 days to complete these requirements. It is suggested that the process be started as soon as possible.

Questions: Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Part VII of this announcement explains how to submit other questions to the U.S. Department of Energy.

Application Receipt Notices

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of four e-mails. It is extremely important that the AOR watch for and save each of the emails. It may take up to two (2) business days from application submission to receipt of email Number 2. You will know that your application has reached DOE when the AOR receives email Number 4. You will need the Submission Receipt Number (email Number 1) to track a submission. The titles of the four e-mails are:

Number 1 - Grants.gov Submission Receipt Number

Number 2 - Grants.gov Submission Validation Receipt for Application Number

Number 3 - Grants.gov Grantor Agency Retrieval Receipt for Application Number

Number 4 - Grants.gov Agency Tracking Number Assignment for Application Number

After receipt of email Number 4, you can view your application at DOE's e-Center, <http://e-center.doe.gov>. A User Id and password are required. If you already have a User Id and password you do not need to re-register.

VERY IMPORTANT – Download PureEdge Viewer: In order to download the application package, you will need to install PureEdge Viewer. This small, free program will allow you to access, complete, and submit applications electronically and securely. For a free version of the software, visit the following web site: www.grants.gov/DownloadViewer.

TABLE OF CONTENTS

PART I – FUNDING OPPORTUNITY DESCRIPTION

PART II – AWARD INFORMATION

- A. Type of Award Instrument**
- B. Estimated Funding**
- C. Maximum and Minimum Award Size**
- D. Expected Number of Awards**
- E. Anticipated Award Size**
- F. Period of Performance**
- G. Type of Application**

PART III – ELIGIBILITY INFORMATION

- A. Eligible Applicants**
- B. Cost Sharing or Matching**
- C. Other Eligibility Requirements**

PART IV – APPLICATION AND SUBMISSION INFORMATION

- A. Address to Request Application Package**
- B. Letter of Intent and Pre-Application**
- C. Content and Form of Application**
- D. Submissions from Successful Applicants**
- E. Submission Dates and Times**
- F. Intergovernmental Review**
- G. Funding Restrictions**
- H. Other Submission and Registration Requirements**

PART V – APPLICATION REVIEW INFORMATION

- A. Criteria**
- B. Review and Selection Process**
- C. Anticipated Notice of Selection and Award Dates**

PART VI – AWARD ADMINISTRATION INFORMATION

- A. Award Notices**
- B. Administrative and National Policy Requirements**
- C. Reporting**

PART VII – QUESTIONS/AGENCY CONTACTS

- A. Questions**
- B. Agency Contacts**

PART VIII – OTHER INFORMATION

- A. Modifications**
- B. Government Right to Reject or Negotiate**
- C. Commitment of Public Funds**
- D. Proprietary Application Information**
- E. Evaluation and Administration by Non-Federal Personnel**
- F. Intellectual Property Developed under this Program**
- G. Notice of Right to Request Patent Waiver**
- H. Notice Regarding Eligible/Ineligible Activities**
- I. Reference Material**

PART I – FUNDING OPPORTUNITY DESCRIPTION

SUMMARY: 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.

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, each year on a separate sheet and attach it on the Budget form as the last page of your budget justification.

GUIDELINES FOR THE PREPARATION OF THE APPLICATION

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. 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.

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.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT.

DOE anticipates awarding grants under this program announcement.

B. ESTIMATED FUNDING.

Subject to Congressional authorization and approval of funds in Fiscal Year 2007, DOE anticipates an estimated \$3 million will be available for awards to fund collaborative research and human resource development in energy-related science and engineering disciplines. Approximately four to six awards are anticipated in Fiscal Year 2007, at a maximum award level of \$750,000 per year for a period of three years. 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.

C. MAXIMUM AND MINIMUM AWARD SIZE.

Ceiling (i.e., the maximum amount for an individual award made under this announcement): See Above

Floor (i.e., the minimum amount for an individual award made under this announcement): See Above

D. EXPECTED NUMBER OF AWARDS.

The number of awards will be contingent on satisfactory peer review, the availability of appropriated funds and the size of the awards.

E. ANTICIPATED AWARD SIZE.

N/A

F. PERIOD OF PERFORMANCE.

N/A

G. TYPE OF APPLICATION.

N/A

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS.

All types of domestic applicants are eligible to apply, except other Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

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.

C. OTHER ELIGIBILITY REQUIREMENTS.

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.

PART IV – APPLICATION AND SUBMISSION INFORMATION

A. ADDRESS TO REQUEST APPLICATION PACKAGE.

Application forms and instructions are available at Grants.gov. To access these materials, go to <http://www.grants.gov>, select "Apply for Grants", and then select "Download Application Package". Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package. NOTE: You will not be able to download the Application Package unless you have installed PureEdge Viewer (See: <http://www.grants.gov/DownloadViewer>).

B. LETTER OF INTENT AND PREAPPLICATION.

1. Letter-of-Intent.

Letters-of-Intent are not required.

2. Preapplication.

Preapplications are not required.

C. CONTENT AND FORM OF APPLICATION – SF 424 (R&R)

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL-Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. **Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement.**

1. SF 424 (R&R)

Complete this form first to populate data in other forms. Complete all the required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the "Help Mode" (Icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 18 can be found on the Applicant and Recipient Page at <http://grants.pr.doe.gov>.

2. RESEARCH AND RELATED Other Project Information.

Complete questions 1 through 5 and attach files. The files must comply with the following instructions:

Project Summary/Abstract (Field 6 on the Form)

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to publication. It should be a single page that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information as the Department may make it available to the public. The project summary must not exceed 1 page when printed using

standard 8.5” by 11” paper with 1” margins (top, bottom, left and right) with font not smaller than 11 point. To attach a Project Summary/Abstract, click “Add Attachment.”

Project Narrative (Field 7 on the form)

The project narrative must not exceed 25 pages, including charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard 8.5” by 11” paper with 1 inch margins (top, bottom, left, and right). Evaluators will only review the number of pages specified in the preceding sentence. The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application, because the information contained in these sites will not be reviewed. **All applications should be in a single PDF file.** To attach a Project Narrative, click “Add Attachment.”

The Research & Related Other Project Information form of the grants.gov template should be completed in the following manner. Project Narrative is Field 7 on the form. The first page of your narrative must include the following information:

Applicant/Institution:

Street Address/City/State/Zip:

Principal Investigator:

Address:

Telephone Number:

Email:

DOE/Office of Science Program Office:

DOE/Office of Science Program Office Technical Contact:

DOE Grant Number (if Renewal or Supplemental Application):

Is this a Collaboration? If yes, please list ALL Collaborating Institutions/Pis* and indicate which ones will also be submitting applications. Also indicate the PI who will be the point of contact and coordinator for the combined research activity.

* Note that collaborating applications must be submitted separately.

Project Narrative, 25 pages or less, Project Narrative must not exceed 25 pages, including tables and figures, but exclusive of attachments. The application must contain an abstract or project summary, short vitae, and letters of intent from collaborators if appropriate, a listing of all current and pending federal support.

Biographical Sketches

Current and Pending Support

Letters of Intent

Facilities and Resources

Literature Cited

Applications not meeting these requirements will be deemed ineligible during the initial screening process.

The project narrative must include:

- Project Objectives.
This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
- Merit Review Criterion Discussion.
The section should be formatted to address each of the merit review criterion and sub-criterion listed in Section V. A. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria.
DOE WILL EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT ADDRESS SEPARATELY EACH OF THE MERIT REVIEW CRITERION AND SUB-CRITERION.
- Evaluation Phase
This section must include a plan and metrics to be used to assess the success of the project.
- Project Performance Site
Indicate the primary site where the work will be performed. If a portion of the work will be performed at any other sites, identify those sites, also.
- Biographical Sketch Appendix
Provide a biographical sketch for the project director/principal investigator (PD/PI) and each senior/key person listed in Section A on the R&R Budget form. **Provide the biographical sketch information as an appendix to your project narrative. Do not attach a separate file.** The biographical sketch appendix will not count in the project narrative page limitation. The biographical information for each person must not exceed 2 pages when printed on 8.5” by 11” paper with 1 inch margins (top, bottom, left, and right) with font not smaller than 11 point and must include:

Education and Training. Undergraduate, graduate and postdoctoral training, provide institution, major/area, degree and year.

Research and Professional Experience: Beginning with the current position list, in chronological order, professional/academic positions with a brief description.

Publications. Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically.

Patents, copyrights and software systems developed may be provided in addition to or substituted for publications.

Synergistic Activities. List no more than 5 professional and scholarly activities

related to the effort proposed.

- Identification of Potential Conflicts of Interest or Bias in Selection of Reviewers. Provide the following information in this section:

Collaborators and Co-editors: List in alphabetical order all persons, including their current organizational affiliation, who are, or who have been, collaborators or co-authors with you on a research project, book or book article, report, abstract, or paper during the 48 months preceding the submission of this application. Also, list any individuals who are currently, or have been, co-editors with you on a special issue of a journal, compendium, or conference proceedings during the 24 months preceding the submission of this application. If there are no collaborators or co-editors to report, state “None.”

Graduate and Postdoctoral Advisors and Advisees: List the names and current organizational affiliations of your graduate advisor(s) and principal postdoctoral sponsor(s) during the last 5 years. Also, list the names and current organizational affiliations of your graduate students and postdoctoral associates during the past 5 years.

- **Current and Pending Support.** List all current and pending support. For each organization providing support, show the total award amount for the entire award period (including indirect costs) and the number of person-months per year to be devoted to the project. Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review.

Bibliography & References Cited (Field 8 on the form)

Provide a bibliography of any references cited in the Project Narrative. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Include only bibliographic citations. Applicants should be especially careful to follow scholarly practices in providing citations for source materials relied upon when preparing any section of the application. **In order to reduce the number of files attached to your application, please provide the Bibliography and References Cited information as an appendix to your project narrative. Do not attach a file in field 8.** This appendix will not count in the project narrative page limitation.

Facilities & Other Resources (Field 9 on the form)

This information is used to assess the capability of the organizational resources, including subawardee resources, available to perform the effort proposed. Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical and Other). If appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly

applicable to the proposed work. Describe other resources available to the project (e.g., machine shop, electronic shop) and the extent to which they would be available to the project. **In order to reduce the number of files attached to your application, please provide the Facility and Other Resource information as an appendix to your project narrative. Do not attach a file in field 9.** This appendix will not count in the project narrative page limitation.

Equipment (Field 10 on the form)

List major items of equipment already available for this project and, if appropriate identify location and pertinent capabilities. **In order to reduce the number of files attached to your application, please provide the Equipment information as an appendix to your project narrative. Do not attach a file in field 10.** This appendix will not count in the project narrative page limitation.

Other Attachment (Field 11 on the form)

If you need to elaborate on your responses to questions 1-5 on the “Other Project Information” document, **provide the information as an appendix to your project narrative. Do not attach a file in field 11.**

3. RESEARCH AND RELATED BUDGET.

Complete the Research and Related Budget form in accordance with the instructions on the form (Activate Help Mode to see instructions) and the following instructions. You must complete a separate budget for each year of support requested. The form will generate a cumulative budget for the total project period. You must complete all the mandatory information on the form before the NEXT PERIOD button is activated. You may request funds under any of the categories listed as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G).

Budget Justification (Field K on the form).

Provide the required supporting information for the following costs (See R&R Budget instructions): equipment; domestic and foreign travel; participant/trainees; material and supplies; publication; consultant services; ADP/computer services; subaward/consortium/contractual; equipment or facility rental/user fees; alterations and renovations; and indirect cost type. Provide any other information you wish to submit to justify your budget request. If cost sharing is required, provide an explanation of the source, nature, amount and availability of any proposed cost sharing. Attach a single budget justification file for the entire project period in Field K. The file automatically carries over to each budget year.

4. R&R SUBAWARD BUDGET ATTACHMENT(S) FORM.

Budgets for Subawardees, other than DOE FFRDC Contractors. You must provide a separate cumulative R&R budget for each subawardee that is expected to perform work estimated to be more than \$100,000 or 50 percent of the total work effort (whichever is less). If you are selected for award, you must submit a multi-year budget for each of these

subawardee (See Section IV.D for submission of Subawardees' multi-year budgets). Download the R&R Budget Attachment from the R&R SUBAWARD BUDGET ATTACHMENT(S) FORM and e-mail it to each subawardee that is required to submit a separate budget. Note: Subawardees must have installed PureEdge Viewer before they can complete the form. After the Subawardee has e-mailed its completed budget back to you, attach it to one of the blocks provided on the form. Use up to 10 letters of the subawardee's name (plus .xfd) as the file name (e.g., ucla.xfd or energyres.xfd).

5. SF-LLL Disclosure of Lobbying Activities

If applicable, complete SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS.

The Department anticipates that no additional submissions will be required. However, it reserves the right to request additional or clarifying information for any reason deemed necessary.

E. SUBMISSION DATES AND TIMES.

1. Preapplication Due Date.

N/A

2. Application Due Date.

The deadline for receipt of formal applications is September 27, 2006, 8:00 p.m. Eastern Time, in order to be accepted for merit review and to permit timely consideration for award in Fiscal Year 2007. **No application will be accepted after this deadline.**

F. GOVERNMENTAL REVIEW .

This program is subject to Executive Order 12372 (Intergovernmental Review of Federal Programs) and the regulations at 10 CFR Part 1005.

One of the objectives of the Executive order is to foster an intergovernmental partnership and a strengthened federalism. The Executive order relies on processes developed by State and local governments for coordination and review of proposed Federal financial assistance.

Applicants should contact the appropriate State Single Point of Contact (SPOC) to find out about, and to comply with, the State's process under Executive Order 12372. The names and addresses of the SPOCs are listed on the Web site of the Office of Management and Budget at <http://www.whitehouse.gov/omb/grants/spoc.html>.

G. FUNDING RESTRICTIONS.

Cost Principles. Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR Part 600.

Pre-award Costs. Recipients may charge to an award resulting from this announcement pre-award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR Part 600. Recipients must obtain the prior approval of the contracting officer for any pre-award costs that are for periods greater than this 90 day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit.

APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD. Submit electronic applications through the “Apply for Grants” function at www.Grants.gov. If you have problems completing the registration process or submitting your application, call Grants.gov at 1-800-518-4726 or send an email to support@grants.gov.

3. Registration Process.

You must COMPLETE the one-time registration process (all steps) before you can submit your first application through Grants.gov (See www.grants.gov/GetStarted). **We recommend that you start this process at least two weeks before the application due date.** It may take 14 days or more to complete the entire process. Use the Grants.gov Organizational Registration Checklists at <http://www.grants.gov/assets/OrganizationRegCheck.doc> to guide you through the process. **IMPORTANT:** During the CCR registration process, you will be asked to designate an E-Business Point of Contact (EBIZ POC). The EBIZ POC must obtain a special password called “Marketing Partner identification Number” (MPIN).

Part V - APPLICATION REVIEW INFORMATION

A. CRITERIA

1. Initial Review Criteria.

Prior to a comprehensive merit evaluation, DOE will perform an initial review in accordance with 10 CFR 605.10(b).

2. Merit Review Criteria.

Applications will be subjected to formal 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;
4. Reasonableness and Appropriateness of the Proposed Budget.

The external peer reviewers are selected with regard to both their scientific expertise and the absence of conflict-of-interest issues. 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.

B. REVIEW AND SELECTION PROCESS.

1. Merit Review.

Applications will be subjected to formal merit review (peer review) and will be evaluated against the evaluation criteria codified at 10 CFR 605.10(d) listed above, as well as the additional criteria listed above.

2. Selection.

The Selection Official will consider the merit review recommendation, program policy factors, and the amount of funds available.

3. Discussions and Award.

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600 and 605; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES.

AWARD ANNOUNCEMENTS

The applications recommended for an award under the DOE/EPSCoR program in FY 2007 will be announced on or about March 15, 2007.

Part VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES.

1. Notice of Selection.

DOE will notify applicants selected for award. This notice of selection is not an authorization to begin performance. (See Part IV.G with respect to the allowability of pre-award costs.)

Organizations whose applications have not been selected will be advised as promptly as possible. This notice will explain why the application was not selected.

2. Notice of Award.

A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes, either as an attachment or by reference: 1. Special Terms and Conditions; 2. Applicable program regulations, if any; 3. Application as approved by DOE; 4. DOE assistance regulations at 10 CFR Part 600, or, for Federal Demonstration Partnership (FDP) institutions, the FDP terms and conditions; 5. National Policy Assurances to Be Incorporated As Award Terms; 6. Budget Summary; and 7. Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS.

1. Administrative Requirements.

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR Part 600 and 10 CFR Part 605 (See: <http://ecfr.gpoaccess.gov>), except for grants made to Federal Demonstration Partnership (FDP) institutions. The FDP terms and conditions and DOE FDP agency specific terms and conditions are located on the National Science Foundation web site at http://www.nsf.gov/awards/managing/fed_dem_part.jsp.

2. Special Terms and Conditions and National Policy Requirements.

Special Terms and Conditions and National Policy Requirements.

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at <http://grants.pr.doe.gov>. The National Policy Assurances To Be Incorporated As Award Terms are located at <http://grants.pr.doe.gov>.

Intellectual Property Provisions.

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www.gc.doe.gov/techtrans/sipp_matrix.html.

C. REPORTING.

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE

F4600.2, attached to the award agreement.

An annual report containing an analysis of the program's success in achieving critical programmatic milestones and biannual updates of "DEARS", the DOE/EPSCoR electronic database, is required as part of the program's monitoring requirement. Failure to comply with DOE/EPSCoR reporting requirements could result in termination of the state's DOE/EPSCoR award. Furthermore, upon completion of a DOE/EPSCoR project, a Final Project Report will be required. Program coordinators must inform DOE/EPSCoR program managers of all significant scientific and technical achievements and awards resulting from this award as they occur.

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the content of the announcement must be submitted through the “Submit Question” feature of the DOE Industry Interactive Procurement System (IIPS) at <http://e-center.doe.gov>. Locate the program announcement on IIPS and then click on the “Submit Question” button. Enter required information. You will receive an electronic notification that your question has been answered. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. DOE cannot answer these questions.

Questions regarding the program (**technical**) requirements should be directed to:

Agency Contacts:

For specific information on DOE interests, contact:

Dr. Aravinda Kini
Materials Sciences and Engineering Division
SC-22.2/Germantown Building
Office of Basic Energy Sciences
Office of Science
U.S. Department of Energy
1000 Independence Ave., SW
Washington, D.C. 20585-1290
Telephone: (301) 903-3565
Email: aravinda.kini@science.doe.gov
Fax: (301) 903- 9513

PART VIII - OTHER INFORMATION

A. MODIFICATIONS.

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE.

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS.

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the Contracting Officer, either explicit or implied, is invalid.

D. PROPRIETARY APPLICATION INFORMATION.

Patentable ideas, trade secrets, proprietary or confidential commercial or financial information, disclosure of which may harm the applicant, should be included in an application only when such information is necessary to convey an understanding of the proposed project. The use and disclosure of such data may be restricted, provided the applicant includes the following legend on the first page of the project narrative and specifies the pages of the application which are to be restricted:

“The data contained in pages 25 of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award. This restriction does not limit the government’s right to use or disclose data obtained without restriction from any source, including the applicant.”

To protect such data, each line or paragraph on the pages containing such data must be specifically identified and marked with a legend similar to the following:

“The following contains proprietary information that (name of applicant) requests not be released to persons outside the Government, except for purposes of review and evaluation.”

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL.

In conducting the merit review evaluation, the Government may seek the advice of qualified non-Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application.

Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM.

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE’s own needs or to insure the commercialization of technology developed under a DOE agreement.

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER.

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this announcement, in advance of or within 30 days after the effective date of the award. Even if such advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.

Domestic small businesses and domestic nonprofit organizations will receive the patent rights clause at 37 CFR 401.14, i.e., the implementation of the Bayh-Dole Act. This clause permits domestic small business and domestic nonprofit organizations to retain title to subject inventions. Therefore, small businesses and nonprofit organizations do not need to request a waiver.

H. N/A

I. N/A