

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



**U.S. Department of Energy
Office of Science
Office of Basic Energy Sciences (BES)**

***Experimental Program to Stimulate Competitive Research
(DOE EPSCoR) Implementation Grants***

**Funding Opportunity Number: DE-FOA-0000546
Announcement Type: Initial
CFDA Number: 81.049**

ISSUE DATE: May 13, 2011

**Letters of Intent Due Date: June 7, 2011, 4:30 p.m. Eastern Time
(Letters of Intent are Strongly Encouraged)**

Application Due Date: June 23, 2011, 11:59 p.m. Eastern Time

NOTE: REQUIREMENTS FOR GRANTS.GOV

Where to Submit: Applications must be submitted through Grants.gov to be considered for award. You cannot submit an application through Grants.gov unless you are registered. Please read the registration requirements carefully and start the process immediately. Remember you have to update your CCR registration annually. If you have any questions about your registration, you should contact the Grants.gov Helpdesk at 1-800-518-4726 to verify that you are still registered in Grants.gov.

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). Use the Grants.gov Organization Registration Checklist at <http://www.grants.gov/assets/OrganizationRegCheck.pdf> 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 21 days to complete these requirements. It is suggested that the process be started as soon as possible.

IMPORTANT NOTICE TO POTENTIAL APPLICANTS: When you have completed the process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step (i.e. Grants.gov registration).

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 Funding Opportunity Announcement (FOA) explains how to submit other questions to the Department of Energy (DOE).

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. 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

Questions regarding the content of the FOA must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party to submit questions, and to view responses to questions. It is recommended that you register as soon after release of the FOA as possible to have the benefit of all responses. More information is available at https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf. 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.

Modifications: Notices of any modifications to this FOA will be posted on Grants.gov and the FedConnect portal. You can receive an email when a modification or an FOA message is posted by registering with FedConnect as an interested party for this FOA. It is recommended that you register as soon after release of the FOA as possible to ensure you receive timely notice of any modifications or other announcements. More information is available at <http://www.fedconnect.net>.

All applications should be in a single PDF file.

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 Preapplication**
- 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**

PART I – FUNDING OPPORTUNITY DESCRIPTION

GENERAL INQUIRIES ABOUT THIS FOA SHOULD BE DIRECTED TO:

Technical/Scientific Program Contact:

Program Manager: Dr. Tim Fitzsimmons

Phone: (301) 903-9830

E-mail: tim.fitzsimmons@science.doe.gov

STATUTORY AUTHORITY

Public Law 95-91, US Department of Energy Organization Act

Public Law 109-58, Energy Policy Act of 2005

APPLICABLE REGULATIONS

U.S. Department of Energy Financial Assistance Rules, codified at 10 CFR Part 600

U.S. Department of Energy, Office of Science Financial Assistance Program Rule, codified at 10 CFR Part 605

SUMMARY:

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 by increasing the geographic diversity of competitive capability to conduct energy-related research and development. Positioned within the Department's Office of Science (SC) in the Office of Basic Energy Sciences, and supporting basic and applied research and development across a wide range of DOE Programs, DOE EPSCoR hereby announces its interest in receiving applications for Implementation Grants from the academic or industrial research community in states and territories (hereafter referred to as jurisdictions) eligible for the program.

Specifically, applications are sought for improvement of research competitiveness in key science and technology areas related to DOE Mission(s) identified by the jurisdiction's EPSCoR governing committee or other appropriate organization on behalf of the jurisdiction. Grants awarded under this program are meant to improve research infrastructure and to support a group of scientists and engineers including graduate students and post doctoral fellows working on a common scientific theme within or across one or more than one EPSCoR jurisdictions. These awards are not appropriate mechanisms to provide support for individual faculty science and technology research projects. Since DOE EPSCoR is currently following NSF EPSCoR eligibility determinations, the following jurisdictions will be eligible for this FOA: Alabama, Alaska, Arkansas, Delaware, Hawaii, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virgin Islands, West Virginia, and Wyoming.

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 jurisdictions to conduct sustainable and nationally competitive energy-related research. The program aims to improve the 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 DOE's overarching mission by supporting basic and applied research and development across a wide range of interdisciplinary program offices and non-defense 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 relevant to other DOE Program Offices including the Office of Electricity Delivery and Energy Reliability; the Office of Energy Efficiency & Renewable Energy; the Office of Environmental Management; the Office of Fossil Energy; the Office of Legacy Management; and, the Office of Nuclear Energy.

In preparation for submitting an application, the jurisdiction's EPSCoR Committee or its designee is expected to have undertaken or adopted a comprehensive analysis of the strengths, weaknesses, and opportunities for improvement of research and development institutions within the jurisdiction in support of the jurisdiction's overall research and development objectives. Applications for this FOA should reference and provide the website for the jurisdiction's strategy to develop and utilize the scientific and technological resources that reside in its research universities and the jurisdiction's industrial or economic resources and describe the relevance of their application within the context of this strategy. Successful applications are likely to be those that are focused on one energy-related research area bringing together multiple researchers. Applications should candidly present the opportunities for enhanced academic research and development competitiveness for the jurisdiction, including the acquisition of sustained non-EPSCoR support. The jurisdiction's infrastructure improvement strategy must have a high probability of realizing stated goals and objectives as judged by the DOE merit review process. It is critical for success of the 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 application with respect to the relevant DOE Program Office or Offices (listed below) and the Office's specific program goals. The relevant program office(s) and the associated scientific/technical point(s) of contact on the DOE (and not National Laboratory) staff must be identified on the first page of the application narrative. *Applications not meeting this requirement will be deemed ineligible during the initial screening process.* If the Program Office or the associated scientific/technical point(s) of contact are unknown, please contact the DOE EPSCoR office well in advance of the application due date. As a measure of relevance to DOE missions, DOE EPSCoR will ask the Program Office or Offices to make a meaningful commitment to applications selected for award such as a financial contribution of up to 10% of the support for the proposed effort. While program offices or program office staff may not recommend commitment of funds prior to merit

review, prospective applicants should make themselves aware of potential programmatic areas of interest prior to drafting an application. 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://science.energy.gov/>

Basic Energy Sciences:

<http://science.energy.gov/bes/>

Biological and Environmental Research:

<http://science.energy.gov/ber/>

Advanced Scientific Computing Research:

<http://science.energy.gov/ascr/>

Fusion Energy Sciences:

<http://science.energy.gov/fes/>

High Energy Physics:

<http://science.energy.gov/hep/>

Nuclear Physics:

<http://science.energy.gov/hep/>

Office of Scientific and Technical Information

<http://www.osti.gov/>

Energy Information Administration

<http://www.eia.doe.gov/>

National Nuclear Security Administration:

<http://www.nnsa.doe.gov/>

Office of Electricity Delivery and Energy Reliability

<http://www.oe.energy.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 Nuclear Energy:

<http://www.ne.doe.gov>

The objectives of the DOE Implementation Grants are to:

- Improve the capability of EPSCoR jurisdictions to conduct sustainable and nationally competitive energy-related research.
- Support a group of scientists working on a common scientific theme across the jurisdiction. Collaborations involving institutions in different EPSCoR jurisdictions are

permitted. (These awards are not meant to support individual faculty working on individual science and technology themes).

- Jumpstart infrastructure development in the jurisdiction(s) through increased human and technical resources.
- Promote partnering with other universities, industry and DOE national laboratories with strong participation by students, postdoctoral fellows, and junior faculty from EPSCoR jurisdictions.

Though not required for application, it is recommended that Implementation Grants work toward building beneficial relationships between institutions in EPSCoR jurisdictions and the 10 world-class laboratories managed by the Office of Science, leveraging capabilities of DOE national user facilities, and increasing intellectual collaboration throughout the DOE system of laboratories and facilities. DOE EPSCoR reserves the right to give priority 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 research similar to that funded under previous Implementation Grants will not be considered.

Funding limitations, Continuation of funding, possibility of renewals:

While DOE EPSCoR funding will not be provided to Federally Funded Research and Development Centers (FFRDCs) nor awarded to non-EPSCoR jurisdictions, consulting and other arrangements with FFRDCs for necessary expertise may be used on a limited basis. Continuation funding for the awards will be contingent upon the availability of appropriated funds and progress of the research. After the initial three year period of funding, renewal applications will be considered for one additional three year period, subject to continuing meritorious performance and progress in the previous award period, continuing program office need, program office commitment to the effort, and the availability of funds.

Subcontracts:

The lead organization may submit only one application that includes other organization(s) as a lower-tier participant(s) or sub-awardee(s) who will be responsible for a smaller portion of the overall project. If an application is approved for funding, DOE will provide the total DOE project funds to the lead organization that will then 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.

Principal Investigator, Project Director and Jurisdiction EPSCoR Committee Roles:

It is recommended that the Principal Investigator (PI) be the lead technical director for the application and have affiliation with the lead institution or organization. S/he should work with a specified Project Director (PD), such as the DOE EPSCoR state director, who will assist in the management of the award and the coordination of the award to meeting the jurisdiction's goals. The PD should provide a letter of commitment from a responsible member of their institution's administration confirming that s/he and the PI will be making a significant time commitment to

administering the project should it be selected for an award. **The jurisdiction's EPSCoR Committee is responsible for selecting the one applicant submitting on behalf of the jurisdiction.** A letter of endorsement from the jurisdiction's EPSCoR Committee or its designee should accompany both the letter of intent and application.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT.

DOE anticipates awarding grants under this Funding Opportunity Announcement (FOA).

B. ESTIMATED FUNDING.

Subject to Congressional authorization and approval of funds in Fiscal Year 2011, it is anticipated that up to \$4,000,000 will be available to support awards to fund collaborative research and human resource development in energy-related science and engineering disciplines. Applicants may request as much as \$2.5 million per year and as little as \$1.0 million per year for a period of three years. Applications requesting less than 1.0 million per year or over \$2.5 million per year will not be considered.

DOE is under no obligation to pay for any costs associated with preparation or submission of preapplications or applications. DOE reserves the right to fund, in whole or in part, any, all, or none of the applications submitted in response to this FOA.

C. MAXIMUM AND MINIMUM AWARD SIZE.

See B. Estimated Funding Section above.

D. EXPECTED NUMBER OF AWARDS.

It is expected that up to two awards will be made under this FOA.

E. ANTICIPATED AWARD SIZE.

See B. Estimated Funding section above.

F. PERIOD OF PERFORMANCE.

A maximum of three years will be considered. Out-year funding will depend upon suitable progress and the availability of funds.

G. TYPE OF APPLICATION.

DOE will accept new applications under this FOA.

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS.

All types of domestic entities are eligible to apply, except 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.

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS.

Since DOE EPSCoR is currently following NSF EPSCoR eligibility determinations, the following jurisdictions will be eligible for this FOA: Alabama, Alaska, Arkansas, Delaware, Hawaii, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virgin Islands, West Virginia, and Wyoming.

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 Funding Opportunity Announcement and then follow the prompts to download the application package.

B. LETTER OF INTENT AND PREAPPLICATION

1. Letter of Intent.

Applicants are strongly encouraged to submit a letter of intent (LOI). The LOI is to include a cover sheet containing the name and mailing address of the applicant lead institution, the planned title of the application, the estimated cost of the project, the name and e-mail addresses of the PD and PI(s), a listing of the institutions that are expected to be involved, the topical research area(s), the DOE Program Office (this is in addition to the EPSCoR program), the DOE Program Office Scientific/Technical Contact (this is not the DOE EPSCoR program manager and may not be DOE National Laboratory research scientists), a letter of endorsement from the jurisdiction's EPSCoR Committee or its designee and a narrative of up to three pages. The narrative should present the scientific and technical objectives and the research plan. The narrative should also reference the jurisdiction's strategy to develop and utilize the scientific and technical resources and begin to place the research in context of that jurisdiction's infrastructure improvement strategy.

The LOIs will be used to organize and expedite the merit review process. Failure to submit such letters will not negatively affect a responsive application submitted in a timely fashion. The letter of intent should be submitted to: epscor@science.doe.gov. The LOI is due **June 7, 2011, 4:30 PM Eastern Time**.

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 funding opportunity 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. The list of certifications and assurances referenced in Field 17 can be found on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm, under Certifications and Assurances.

2. RESEARCH AND RELATED Other Project Information.

Complete questions 1 through 6 and attach files. The files must comply with the following instructions:

Project Summary/Abstract (Field 7 on the Form).

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s) (PD/PI), 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 1-2 pages 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 8 on the Form).

The project narrative **must not exceed 20 pages** for Full Applications and **must not exceed 10 pages** for Exploratory Applications, of technical information, 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). *Applications that are not compliant with either the page or budget limitations described above may be declined administratively without review.* 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. See Part VIII.D for instructions on how to mark proprietary application information. To attach a Project Narrative, click “Add Attachment.”

Letters of endorsement from unfunded collaborators should also be included, if applicable. Please do not submit general letters of support as these are not used in making funding decisions.

The application narrative should begin with a cover page that includes: the project title, the Lead PI’s name and complete contact information.

The cover page must also include the following information (this page will not count in the project narrative page limitation):

Applicant/Institution:
Street Address/City/State/Zip:

Principal Investigator:
Postal Address:
Telephone Number:
Email:

Funding Opportunity Announcement Number: DE-FOA-0000546
DOE/Office of Science Program Office: Office of Basic Energy Sciences
DOE/Program Office(s):
(this is in addition to DOE EPSCoR)

DOE/Office of Science Program Office Technical Contact: Dr. Tim Fitzsimmons
DOE/Program Office Scientific/Technical Contact(s):
(this is in addition to the DOE EPSCoR program manager and
May not be DOE National Laboratory research scientists)

DOE Grant Number (if Renewal or Supplemental Application):

Is this a Collaboration? If yes, please list ALL Collaborating Institutions/Pis.

The project narrative must include:

Project Objectives

This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.

The Project Narrative comprises the research plan for the project, it should contain enough background material in the Introduction, including review of the relevant literature, to demonstrate sufficient knowledge of the state of the science. The major part of the narrative should be devoted to a description and justification of the proposed project, including details of the method to be used. It should also include a timeline for the major activities of the proposed project, and should indicate which project personnel will be responsible for which activities.

Appendix 1: 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. This appendix will not count in the project narrative page limits. Do not attach a separate file.** The biographical information for each person must not exceed two pages when printed on 8.5” by 11” paper with one-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 five 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 five years. Also, list the names and current organizational affiliations of your graduate students and postdoctoral associates during the past five years.

Appendix 2: Current and Pending Support.

Provide a list of all current and pending support (both Federal and non-Federal) for the Project Director/Principal Investigator(s) (PD/PI) and senior/key persons, including subawardees, for ongoing projects and pending applications. 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 by the senior/key person. **Provide the Current and Pending Support as an appendix to your project narrative. This appendix will not count in the project narrative page limits. Do not attach a separate file.** Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review.

Appendix 3: Bibliography & References Cited.

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. **Provide the Bibliography and References Cited information as an appendix to your project narrative. This appendix will not count in the project narrative page limits. Do not attach a separate file.**

Appendix 4. Facilities & Other Resources.

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. **Provide the Facility and Other Resource information as an appendix to your project narrative. This appendix will not count in the project narrative page limits. Do not attach a separate file.**

Appendix 5: Equipment.

List major items of equipment already available for this project and, if appropriate identify location and pertinent capabilities. **Provide the Equipment information as an appendix to your project narrative. This appendix will not count in the project narrative page limits. Do not attach a separate file.**

Appendix 6: Other Attachments.

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. This appendix will not count in the project narrative page limits. Do not attach a separate file.**

Do not attach any of the requested appendices described above as files for fields 9, 10, 11 and 12; instead follow the above instructions to include the information as appendices to the project narrative file (these appendices will not count in the project narrative page limitation).

3. RESEARCH AND RELATED BUDGET.

Complete the Research and Related Budget form in accordance with the instructions on the form. 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 FOA (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. **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 Subrecipients, 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 subrecipients (See Section IV.D for submission of Subrecipients' multi-year budgets). Download the R&R Budget Attachment from the R&R SUBAWARD BUDGET ATTACHMENT(S) FORM and e-mail it to each subrecipient that is required to submit a separate budget. After the subrecipient has emailed its completed budget back to you, attach it to one of the blocks provided on the form. Use up to ten letters of the subrecipient's name (plus.xfd) as the file name (e.g., ucla.xfd or energyres.xfd).

5. PROJECT/PERFORMANCE SITE LOCATION(S).

Indicate the primary site where the work will be performed. If a portion of the project will be performed at any other site(s), identify the site location(s) in the blocks provided.

Note that the Project/Performance Site Congressional District is entered in the format of the two-digit state code followed by a dash and a three-digit Congressional district code, for example VA-001. Hover over this field for additional instructions.

Use the Next Site button to expand the form to add additional Project/Performance Site Locations.

6. 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."

Summary of Required Forms/Files

Your application must include the following documents:

Name of Document	Format	Attach to
SF 424 (R&R)	Form	N/A
RESEARCH AND RELATED Other Project Information	Form	N/A
Project Summary/Abstract	PDF	Field 7
Project Narrative, including required appendices	PDF	Field 8
RESEARCH & RELATED BUDGET	Form	N/A
Budget Justification	PDF	Field K
PROJECT/PERFORMANCE SITE LOCATION(S)	Form	N/A
SF-LLL Disclosure of Lobbying Activities, if applicable	Form	N/A

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS.

If selected for award, DOE reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to:

- Indirect cost information
- Other budget information
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Representation of Limited Rights Data and Restricted Software, if applicable
- Commitment Letter from Third Parties Contributing to Cost Sharing, if applicable

E. SUBMISSION DATES AND TIMES.

1. Letter of Intent.

The LOI is due **June 7, 2011, 4:30 PM Eastern Time**. The letter of intent should be submitted to epscor@science.doe.gov (see part IV.B.1)

2. Preapplication.

Preapplications are not required.

3. Formal Applications.

Formal applications submitted in response to this FOA must be received by **June 23, 2011, 11:59 PM Eastern Time**, to permit timely consideration of awards in Fiscal Year 2011. **You are encouraged to transmit your application well before the deadline.**

APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

F. INTERGOVERNMENTAL REVIEW.

This program is not subject to Executive Order 12372 Intergovernmental Review of Federal Programs.

G. FUNDING RESTRICTIONS.

Cost Principles. Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR Part 600 and 2 CFR 215.

Pre-award Costs. Recipients may charge to an award resulting from this FOA 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 and 2 CFR 215. 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.

2. Registration Process.

You must COMPLETE the one-time registration process (all steps) before you can submit your first application through Grants.gov. We recommend that you start this process at least three weeks before the application due date. It may take 21 days or more to complete the entire process. Use the Grants.gov Organizational Registration Checklists at <http://www.grants.gov/assets/OrganizationRegCheck.pdf> 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). When you have completed the

process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step (i.e., Grants.gov registration).

You cannot submit an application through Grants.gov unless you are registered. Please read the registration requirements carefully and start the process immediately. Remember you have to update your CCR registration annually.

3. 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. 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

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 scientific merit review (peer review) and will be evaluated against the following criteria, listed in descending order of importance as found in 10 CFR Part 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.
- 5) Synergism among the PIs in a program and the programmatic focus of a multi-PI effort; and,
- 6) The likelihood of success of the Implementation Grant including:
 - a) How well does the application couple with the jurisdiction's strategy to develop and utilize the scientific and technological resources that reside in its research universities and the jurisdiction's industrial or economic resources?
 - b) Does the applicant have a plan to or has the awardee made competitive faculty hires and retained outstanding faculty within the scope of the implementation award?
 - c) Does the applicant have a plan to attract or has the awardee hired outstanding graduate students and post docs?
 - d) Does the applicant have plans to develop or have they developed as part of the implementation grant unique infrastructure capabilities that are critical to the advancement of science or technology? Alternatively, are they planning to or making unique contributions to DOE oriented capabilities (e.g., building or developing unique capabilities for a DOE experiment or facility)?
 - e) Does the applicant have plans to be or are the grantees on track to a sustained leadership position in their discipline(s)?
 - f) Does the applicant have plans to or are the grantees effectively leveraging DOE funding and capabilities with local and regional resources? How has the

jurisdiction's EPSCoR Committee planned to and what actions have they taken to maximize the long-term impact of the award?

DOE reserves the right to include performance under previous implementation grants and management value added provided by the jurisdiction's EPSCoR Committee as a factor in award decisions. DOE also reserves the right and option to prioritize applications from and involving investigators in tenure-track or tenured positions. Site visits or reverse site visits may be used as part of the evaluation process and in the review of performance from the inception of an award through its completion.

The evaluation process will include program policy factors such as the relevance of the proposed research to the terms of the FOA 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.

B. REVIEW AND SELECTION PROCESS.

1. Merit Review.

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Office of Science Merit Review System for Financial Assistance." This Merit Review System is available at <http://www.sc.doe.gov/grants/merit.asp>.

2. Selection.

The Selection Official will consider the merit review evaluation, 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.

DOE is striving to make **awards within 6 months**. The time interval begins on the date applications are due or the date the application is received. It is anticipated that selections will be made in Fiscal Year 2011.

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.

An Assistance Agreement 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; 5. National Policy Assurances to Be Incorporated As Award Terms; 6. Budget Summary; and 7. Federal Assistance Reporting Checklist, which identifies the reporting requirements.

For grants and cooperative agreements made to universities, non-profits and other entities subject to Title 2 CFR the Award also includes the Research Terms and Conditions located at <http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp>

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS.

1. Administrative Requirements.

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR 600 and 10 CFR Part 605 (See: <http://ecfr.gpoaccess.gov>). Grants and cooperative agreements made to universities, non-profits and other entities subject to Title 2 CFR are subject to the Research Terms and Conditions located on the National Science Foundation web site at <http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp>.

DUNS and CCR Requirements

Additional administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR, Part 25 (See: <http://ecfr.gpoaccess.gov>). Prime awardees must keep their data at CCR current. Subawardees at all tiers must obtain DUNS numbers and provide the DUNS to the prime awardee before the subaward can be issued.

Subaward and Executive Reporting

Additional administrative requirements necessary for DOE grants and cooperative agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR, Part 170. (See: <http://ecfr.gpoaccess.gov>). Prime awardees must register with the new FSRS database and report the required data on their first tier subawardees. Prime awardees must report the executive compensation for their own executives as part of their registration profile in the CCR.

2. 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://management.energy.gov/business_doe/business_forms.htm.

The National Policy Assurances to Be Incorporated As Award Terms are located at <http://www.nsf.gov/bfa/dias/policy/rtc/appc.pdf>.

Intellectual Property Provisions.

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at

http://www.gc.energy.gov/financial_assistance_awards.htm.

C. REPORTING.

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F4600.2, attached to the award agreement.

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the content of the FOA must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party to submit questions, and to view responses to questions. It is recommended that you register as soon after release of the FOA as possible to have the benefit of all responses. More information is available at

https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf.

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.

Applications submitted through FedConnect will not be accepted.

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.

B. AGENCY CONTACTS:

GENERAL INQUIRIES ABOUT THIS FOA SHOULD BE DIRECTED TO:

Technical/Scientific Program Contacts:

Program Manager: Dr. Tim Fitzsimmons

Phone: (301) 903-9830

E-mail: tim.fitzsimmons@science.doe.gov

PART VIII - OTHER INFORMATION

A. MODIFICATIONS.

Notices of any modifications to this FOA will be posted on Grants.gov and the FedConnect portal. You can receive an email when a modification or an announcement message is posted by registering with FedConnect as an interested party for this FOA. It is recommended that you register as soon after release of the FOA as possible to ensure you receive timely notice of any modifications or other announcements. More information is available at <http://www.fedconnect.net>.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE.

DOE reserves the right, without qualification, to reject any or all applications received in response to this FOA 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 _____ 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 FOA, 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, <http://www.gc.doe.gov/documents/patwaivclau.pdf>.

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. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES

N/A