**FINANCIAL ASSISTANCE**

**FUNDING OPPORTUNITY ANNOUNCEMENT**



**U. S. Department of Energy**

**Office of Fossil Energy**

**National Energy Technology Laboratory**

**“Solid Oxide Fuel Cell Innovative Concepts and Core Technology Research Program”**

**Funding Opportunity Number: DE-FOA-0001229**

**Announcement Type: Initial**

**CFDA Number: 81.089**

**Issue Date: 02/04/2015**

**Letter of Intent Due Date: Not Applicable**

**Pre-Application Due Date: Not Applicable**

**Application Due Date: 04/06/2015**

**11:59:59 PM Eastern Time**

**NOTE: REGISTRATION/SUBMISSION REQUIREMENTS**

***Registration Requirements***

There are several one-time actions you must complete in order to submit an application in response to this Announcement (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contractor Registration (CCR), and register with Grants.gov). 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.

**Applicants must obtain a DUNS number. DUNS website:** [**http://fedgov.dnb.com/webform**](http://fedgov.dnb.com/webform)**.**

**Applicants must register with the CCR. CCR website:** [**http://www.ccr.gov/**](http://www.ccr.gov/)

**Applicants must register with Grants.gov. Grants.gov website:** [**http://grants.gov/**](http://grants.gov/)

**Applicants must register with FedConnect to submit questions. FedConnect website:** [**www.fedconnect.net**](http://www.fedconnect.net)

***Questions***

Questions relating to the **system requirements or how an application form works** must be directed to Grants.gov at 1-800-518-4726 or [**support@grants.gov**](mailto:support@grants.gov).

Questions regarding the **content** of the announcement 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. DOE/NNSA will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

***Application Preparation and Submission***

**Applicants must download the application package, application forms and instructions, from Grants.gov. Grants.gov website:** [**http://www.grants.gov/**](http://www.grants.gov/)

(Additional instructions are provided in Section IV A of this FOA.)

**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.

**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).

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# **Section I - FUNDING OPPORTUNITY DESCRIPTION**

**Description**

Background

The Department of Energy’s (DOE) Office of Fossil Energy (FE), through the National Energy Technology Laboratory (NETL), manages a robust research portfolio in the Solid Oxide Fuel Cell (SOFC) program in which are developed low-cost, highly efficient SOFC power generation systems that produce electric power from natural gas or coal with intrinsic carbon capture capabilities.  Efforts within the Fossil Energy Fuel Cell Program are coordinated under collaboration between DOE/NETL, private industry, academic institutions, and national laboratories.

SOFC power systems have the potential to achieve greater than 60 percent efficiency (HHV) and more than 97 percent carbon capture at a cost-of-electricity that is projected to be approximately 40 percent below that presently available through integrated gasification fuel cell (IGFC) systems with carbon capture. DOE’s SOFC Program is developing SOFC technology suitable for natural gas fueled distributed generation (DG) applications and natural gas fuel cell (NGFC) or IGFC central stations. SOFC projects falling under the Core Technology area focus their efforts on laboratory scale research and development (R&D) to support SOFC system manufacturers.

Objective

The objective is to solicit and competitively award applied research projects that support the improvement of the reliability, robustness, and endurance of SOFC cell and stack technology. This objective will support the development of commercially viable SOFC technology for entry into service products. These products will eventually lead to SOFC technology that is viable for large scale central generation applications (i.e. technology that meets the SOFC program cost targets). Fuel cell technology, other than SOFC will be considered non-responsive to this FOA.

Technical Areas of Interest

**Topic Area 1: Innovative Concepts:** The Innovative Concepts topic area will support the research and development of SOFC technology that has the potential to significantly undercut current DOE cost targets in a SOFC system. Proposals are sought for applied bench-scale R&D on innovative SOFC cell and stack technologies that will significantly decrease the cost of SOFC systems by leveraging advancements that have occurred in the DOE SOFC Program and /or advanced cell manufacturing techniques. Projects selected under this topic area will culminate in a nominally 5-10 kW-scale stack test for at least 1000 hours using full-size cells, operating on natural gas or simulated natural gas fuel, that would be envisioned in a commercial system.

Potential technology development pathways could include, but are not limited to, one or more of the following:

* lower-cost materials
* advanced manufacturing methods
* high-performance cell components
* alternative architectures.

**Topic Area 2: SOFC Core Technology:** The SOFC Core Technology research topic area will focus on applied laboratory or bench- scale R&D that improves the robustness, reliability, and endurance of SOFC cell or stack technology. Applications in this topic area can focus on any SOFC cell or stack component. These projects will have two phases. Phase I will be 18 months in duration, during which time innovative SOFC cell or stack concepts will be developed based on preliminary experimental and/or modeling results. Successful Recipients will transition from Phase I into Phase II via a competitive down-select process. In Phase II, successful Recipients will build on the promising concepts developed in Phase I over the course of three years. Phase II budgets will be approximately five times the value of Phase I to reflect the higher TRL of the Phase II experimental and/or modeling work. Additionally, it is envisioned that successful Phase II Recipients will partner with an SOFC manufacturer whose technology is nearing commercial viability. Phase II projects selected under this topic area will culminate in testing of full-size cells by the participating SOFC manufacturer.

**Only Recipients of a Phase I award will be afforded the opportunity to submit a Phase II application for consideration under the competitive down-selection process outlined in this FOA.** For successful Phase I awardees intending to participate in the Phase II down-selection process, the specific requirements for Phase II applications are due by December 31, 2016. For successful Phase I awardees not interested in applying for the Phase II down-selection, Phase I deliverables will be due at the end of the project.

**Phase II – Application Specific Requirements:**

There will be no Phase II applications accepted for Topic Area 1 awards.

Phase II applications for awards in **Topic Area 2** will contain the following sections:

-          Phase I Topical Report detailing Phase I accomplishments resulting from the conceptual design and component validation efforts.

-          Phase II Budget and Budget Justification

-          Phase II Environmental Questionnaire

-          Phase II Technical Narrative [, including updated Phase II Statement of Project Objectives (SOPO)]

-          Phase II Project Management Plan

# **Section II - AWARD INFORMATION**

# **A. TYPE OF AWARD INSTRUMENT**

DOE anticipates awarding Cooperative Agreements under this funding opportunity announcement (See Section VI.B.2 Statement of Substantial Involvement).

# **B. ESTIMATED FUNDING**

Approximately $9,500,000 is expected to be available for new awards under this announcement. Funding for all awards, future budget periods, and Phases are contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority.

# **C. MAXIMUM AND MINIMUM AWARD SIZE**

Ceiling (i.e., the maximum amount for an individual award made under this announcement): **None**

Floor (i.e., the minimum amount for an individual award made under this announcement): **None**

# **D. EXPECTED NUMBER OF AWARDS**

DOE anticipates making approximately thirteen (13) awards under this announcement.

|  |  |
| --- | --- |
| **Topic Area** | **Number of Awards** |
| 1. Innovative Concepts | 3 |
| 2. SOFC Core Technology | 10 (*Phase I only*) |

# **E. ANTICIPATED AWARD SIZE**

The anticipated award size for projects under each Topic Area in this announcement is:

|  |  |
| --- | --- |
| **Topic Area** | **Award Size** |
| 1. Innovative Concepts | $2,500,000 (DOE share - 80.0%) plus 20% Recipient Cost Share |
| 2. SOFC Core Technology | $200,000 (DOE share - 80.0%) plus 20% Recipient Cost Share (*Phase I only*) |

# **F. PERIOD OF PERFORMANCE**

The anticipated period of performance for projects under each Topic Area in this announcement is:

|  |  |
| --- | --- |
| **Topic Area** | **Period of Performance** |
| 1. Innovative Concepts | 24 – 36 months, one coextensive Budget and Project Period |
| 2. SOFC Core Technology | Phase I –18 months, one budget period  Phase II – 36 months, 2 budget periods |

# **G. TYPE OF APPLICATION**

DOE will accept only new applications under this announcement.

# **Section III - ELIGIBILITY INFORMATION**

# **A. ELIGIBLE APPLICANTS**

**1. Individuals**

U.S. citizens and lawful permanent residents are eligible to apply for funding as a prime recipient or subrecipient.

**2. Domestic Entities**

For-profit entities, educational institutions, and nonprofits that are incorporated (or otherwise formed) under the laws of a particular State or territory of the United States are eligible to apply for funding as a prime recipient or subrecipient.

State, local, and tribal government entities are eligible to apply for funding as a prime recipient or subrecipient.

DOE/NNSA Federally Funded Research and Development Centers (FFRDCs) are not eligible for an award as a prime recipient, but may be proposed as a team member on another entity's application, subject to the following: The FFRDC’s effort, in aggregate, shall not exceed **25%** of the total estimated cost of the project, including the applicant's and the FFRDC's portions of the effort.

DOE Government-Operated Government-Owned laboratories (GOGOs), Non-DOE/NNSA FFRDCs, Non-DOE GOGOs, and Federal agencies and instrumentalities (other than DOE) are not eligible to apply for funding as a prime recipient.

**NOTE: NETL is not eligible for award under this announcement and may not be proposed as a team member on another entity’s application.**

**3. Foreign Entities**

Foreign entities, whether for-profit or otherwise, are eligible to apply for funding under this FOA.

Other than as provided in the "Individuals" or "Domestic Entities" sections above, all prime recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. If a foreign entity applies for funding as a prime recipient, it must designate in the Full Application a subsidiary or affiliate incorporated (or otherwise formed) under the laws of a State or territory of the United States to be the prime recipient. The Full Application must state the nature of the corporate relationship between the foreign entity and domestic subsidiary or affiliate. Foreign entities may request a waiver of this requirement in the Full Application. See Section VIII for waiver request information. The DOE Contracting Officer has discretion to waive this requirement if he/she determines that it will further the purposes of this FOA and is otherwise in the interests of Fossil Energy.

A foreign entity may receive funding as a subrecipient.

**4. Incorporated Consortia**

Incorporated consortia, which may include domestic and/or foreign entities, are eligible to apply for funding as a prime recipient or subrecipient. For consortia incorporated (or otherwise formed) under the laws of a State or territory of the United States, please refer to "Domestic Entities" above. For consortia incorporated in foreign countries, please refer to the requirements in "Foreign Entities" above.

Each incorporated consortium must have an internal governance structure and a written set of internal rules. Upon request, the consortium must provide a written description of its internal governance structure and its internal rules to the DOE Contracting Officer.

**5. Unincorporated Consortia**

Unincorporated consortia, which may include domestic and foreign entities, must designate one member of the consortium to serve as the prime recipient/consortium representative. The prime recipient/consortium representative must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. The eligibility of the consortium will be determined by the eligibility of the prime recipient/consortium representative under Section III.A of the FOA.

Upon request, unincorporated consortia must provide the DOE Contracting Officer with a collaboration agreement, commonly referred to as the articles of collaboration, which sets out the rights and responsibilities of each consortium member. This agreement binds the individual consortium members together and should discuss, among other things, the consortium's:

\* Management structure;

\* Method of making payments to consortium members;

\* Means of ensuring and overseeing members' efforts on the project;

\* Provisions for members' cost sharing contributions; and

\* Provisions for ownership and rights in intellectual property developed previously or under the agreement.

# **B. COST SHARING**

# 

The cost share must be at least 20% of the total allowable costs for research and development projects (i.e., the sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project) and must come from non-Federal sources unless otherwise allowed by law. (See 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation) for the applicable cost sharing requirements.)

# **C. FFRDC/NATIONAL LABORATORIES**

Federally Funded Research and Development Center (FFRDC) Contractors. FFRDC contractors may be proposed as a team member on another entity's application subject to the following guidelines:

Authorization for non-DOE/NNSA FFRDCs. The Federal agency sponsoring the FFRDC contractor must authorize in writing the use of the FFRDC contractor on the proposed project and this authorization must be submitted with the application. The use of a FFRDC contractor must be consistent with the contractor's authority under its award and must not place the FFRDC contractor in direct competition with the private sector.

Authorization for DOE/NNSA FFRDCs. The cognizant contracting officer for the FFRDC must authorize in writing the use of a DOE/NNSA FFRDC contractor on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization.

"Authorization is granted for the [*Name*] Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complimentary to the missions of the laboratory, will not adversely impact execution of the DOE/NNSA assigned programs at the laboratory, and will not place the laboratory in direct competition with the domestic private sector."

Value/Funding. The value of, and funding for, the FFRDC contractor portion of the work will not normally be included in the award to a successful applicant. Usually, DOE/NNSA will fund a DOE/NNSA FFRDC contractor through the DOE field work proposal system and other FFRDC contractors through an interagency agreement with the sponsoring agency.

Cost Share. The applicant's cost share requirement will be based on the total cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

FFRDC Contractor Effort:

- The scope of work to be performed by the FFRDC contractor may not be more significant than the scope of work to be performed by the applicant.

- The FFRDC contractor effort, in aggregate, shall not exceed 25.0% of the total estimated cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

Responsibility. The applicant, if successful, will be the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues, including but not limited to, disputes and claims arising out of any agreement between the applicant and the FFRDC contractor.

# **D. PERFORMANCE OF WORK IN THE UNITED STATES**

The Recipient agrees that at least **75.0%** of the direct labor cost for the project (including subrecipient labor) shall be incurred in the United States, unless the Recipient can demonstrate to the satisfaction of the Department of Energy that the United States economic interest will be better served through a greater percentage of the work being performed outside of the United States.

Applicants and prime recipients may request a waiver of this requirement. Applicants must include a written waiver request in the Full Application. Prime recipients must submit any waiver requests in writing to the DOE Contracting Officer for this FOA. The DOE Contracting Officer has discretion to waive this requirement if he/she determines that it will further the purposes of this FOA and is otherwise in the best interest of the Government. If you would like to request a waiver see Section VIII.

# **Section 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 "APPLICANT”, then Click “Apply for Grants," and then select "Download a Grant 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.

# **B. LETTER OF INTENT AND PRE-APPLICATION**

Letters of Intent are not required.

**2. Pre-application**

Pre-applications are not required.

# **C. CONTENT AND APPLICATION FORMS**

You must complete the mandatory forms and any applicable optional forms (e.g., Disclosure of Lobbying Activities (SF-LLL)) 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. The list of certifications and assurances referenced in Field 17 can be found on the DOE Financial Assistance Forms Page at http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms 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), 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 after awards are made. The project summary must not exceed 2 pages when printed using standard 8.5" by 11" paper with 1" margins (top, bottom, left and right) {single spaced} 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 25 pages, including cover page, table of contents, charts, graphs, maps, photographs, tables, and other pictorial presentations, when printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right) {single spaced} with font not smaller than 11 point. EVALUATORS WILL ONLY REVIEW THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE. 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."

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 Part 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.

- Relevance and Outcomes/Impacts: This section should explain the relevance of the effort to the objectives in the program announcement and the expected outcomes and/or impacts.

- Roles Of Participants: For multi-organizational or multi-investigator projects, describe the roles and the work to be performed by each participant/investigator, business agreements between the applicant and participants, and how the various efforts will be integrated and managed.

- Multiple Principal Investigators: The applicant, whether a single organization or team/partnership/consortium, must indicate if the project will include multiple PIs. This decision is solely the responsibility of the applicant. If multiple PIs will be designated, the application must identify the Contact PI/Project Coordinator and provide a "Coordination and Management Plan" that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- process for making decisions on scientific/technical direction;

- publications;

- intellectual property issues;

- communication plans;

- procedures for resolving conflicts; and

- PIs' roles and administrative, technical, and scientific responsibilities for the project.

- Statement Of Project Objectives (SOPO): The project narrative must contain a single, detailed Statement of Project Objectives that addresses how the project objectives will be met. The Statement of Project Objectives must contain a clear, concise description of all activities to be completed during project performance and follow the structure discussed below. The Statement of Project Objectives may be released to the public by DOE in whole or in part after award. It is therefore required that it shall not contain proprietary or confidential business information.

The Statement of Project Objectives is generally less than **10** pages in total for the proposed work. Applicants shall prepare the Statement of Project Objectives in the following format:

TITLE OF WORK TO BE PERFORMED (Insert the title of work to be performed. Be concise and descriptive.)

A. OBJECTIVES

Include one paragraph on the overall objective(s) of the work. Also, include objective(s) for each phase of the work.

B. SCOPE OF WORK

This section should not exceed one-half page and should summarize the effort and approach to achieve the objective(s) of the work for each Phase.

C. TASKS TO BE PERFORMED

Tasks, concisely written, should be provided in a logical sequence and should be divided into the phases of the project, as appropriate. This section provides a brief summary of the planned approach to this project. An outline of the Project Management Plan (referenced in Task 1.0 below and required to be submitted with your application) is provided later in this Section.

PHASE I

**Task 1.0 - Project Management, Planning and Reporting**

The Recipient shall manage and direct the project in accordance with a Project Management Plan to meet all technical, schedule and budget objectives and requirements. The Recipient shall coordinate activities in order to effectively accomplish the work. The Recipient shall ensure that project plans, results, and decisions are appropriately documented and project reporting and briefing requirements are satisfied.

The Recipient will update the Project Management Plan as necessary to accurately reflect current status of the project. Examples of when it may be appropriate to update the Project Management Plan include: (a) project management policy and procedural changes; (b) changes to the technical, cost, and/or schedule baseline for the project; (c) significant changes in scope, methods, or approaches; or, (d) as otherwise required to ensure that the plan is the appropriate governing document for the work required to accomplish the project objectives.

Management of project risks shall occur in accordance with the risk management methodology delineated in the Project Management Plan in order to identify, assess, monitor and mitigate technical uncertainties as well as schedule, budgetary and environmental risks associated with all aspects of the project. The results and status of the risk management process shall be presented during project reviews and in Progress Reports with emphasis placed on the medium- and high-risk items.

Task 2.0 - (Title)

PHASE II (Optional)

Task 3.0 - (Title)

D. DELIVERABLES

The periodic, topical, and final reports shall be submitted in accordance with the attached "Federal Assistance Reporting Checklist" and the instructions accompanying the checklist. A Project Management Plan (PMP) shall be maintained and submitted, with the initial PMP due 30 days after award. Revisions to the PMP shall be submitted as requested by the Project Officer.

[Note: The Recipient shall provide a list of deliverables other than those identified on the "Federal Assistance Reporting Checklist" that will be delivered. These reports shall also be identified within the text of the Statement of Project Objectives. See the following examples:]

1. Task 1.1 - (Report Description)

2. Task 2.2 - (Report Description)

E. BRIEFINGS/TECHNICAL PRESENTATIONS

The Recipient shall prepare a detailed kick off meeting and semiannual briefings (based upon the quarterly Progress Reports) for presentation to the DOE Project Officer at the NETL facility located in Morgantown, WV or Pittsburgh, PA or via WebEx. Briefings shall be conducted by the Recipient to explain the plans, progress, and results of the effort. The Recipient shall present the project results orally as a presentation or as a poster at annual programmatic workshops, as required. Presentation materials shall be provided to the DOE Project Officer as needed for internal NETL use or DOE Office of Fossil Energy Headquarters use.

**\*\*The following Appendices are to be included in the Project Narrative document/file, but WILL NOT count towards the Project Narrative page limitation. \*\***

*Identification of Potential Conflicts of Interest or Bias in Selection of Reviewers Appendix*:

Provide the following information in this section. **This appendix will not count in the project narrative page limitation:**

*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.

*Bibliography & References Cited Appendix*: 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 9. **This appendix will not count in the project narrative page limitation.**

*Facilities & Other Resources Appendix*: This information is used to assess the capability of the organizational resources, including subrecipient 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 10. **This appendix will not count in the project narrative page limitation.**

*Equipment Appendix*: 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 11. **This appendix will not count in the project narrative page limitation.**

Other Attachments (Field 12 on the form)

If you need to elaborate on your responses to questions 1-6 on the "Other Project Information" document, attach a file in field 12.

Also, attach the following files:

**Project Management Plan**

This plan should be formatted to include the following sections with each section to include the information as described below:

A. Executive Summary: Provide a description of the project that includes the objective, project goals, and expected results. For purposes of the application, this information is included in the Project Narrative (Field 8) and should be simply copied to this document for completeness, so that the Project Management Plan is a stand-alone document.

B. Risk Management: Provide a summary description of the proposed approach to identify, analyze, and respond to perceived risks associated with the proposed project. Project risk events are uncertain future events that, if realized, impact the success of the project. As a minimum, include the initial identification of significant technical, resource, and management issues that have the potential to impede project progress and strategies to minimize impacts from those issues.

C. Milestone Log: Provide milestones for each budget period (or phase) of the project. Each milestone should include a title and planned completion date. Milestones should be quantitative and show progress toward budget period and/or project goals.

[Note: During project performance, the Recipient will report the Milestone Status as part of the required quarterly Progress Report as prescribed under Attachment 4, Reporting Requirements Checklist. The Milestone Status will present actual performance in comparison with Milestone Log, and include:

(1) the actual status and progress of the project,

(2) specific progress made toward achieving the project's milestones, and,

(3) any proposed changes in the project's schedule required to complete milestones. ]

D. Funding and Costing Profile: Provide a table (the Project Funding Profile) that shows, by budget period, the amount of government funding going to each project team member. Also provide a table (the Project Costing Profile) that projects, by month, the expenditure of government funds for the first budget period, at a minimum.

E. Project Timeline: Provide a timeline of the project (similar to a Gantt chart) broken down by each task and subtask, as described in the Statement of Project Objectives. The timeline should include for each task, a start date, and end date. The timeline should show interdependencies between tasks and include the milestones that are identified in the Milestone Log (Section C).

F. Success Criteria at Decision Points: Provide success criteria for each decision point in the project, including go/no-go decision points and the conclusions of budget periods and the entire project. The success criteria should be objective and stated in terms of specific, measurable, and repeatable data. Usually, the success criteria pertain to desirable outcomes, results, and observations from the project.

[Note: As the first task in the Statement of Project Objectives, successful applicants will revise the version of the Project Management Plan that is submitted with their applications by including details from the negotiation process. This Project Management Plan will be updated by the Recipient as the project progresses, and the Recipient must use this plan to report schedule and budget variances.]

Save this plan in a single file named "pmp.pdf" and click on "Add Attachments" in Field 12 to attach.

**Commitment Letters from Third Parties Contributing to Cost Sharing**

If a third party, (i.e., a party other than the organization submitting the application) proposes to provide all or part of the required cost sharing, the applicant must include a letter from the third party stating that it is committed to providing a specific minimum dollar amount of cost sharing. The letter should also identify the proposed cost sharing (e.g., cash, services, and/or property) to be contributed. Letters must be signed by the person authorized to commit the expenditure of funds by the entity and be provided in a PDF format. Save this information in a single file named "CLTP.pdf" and click on "Add Attachments" in Field 12 to attach.

**Budget for DOE/NNSA Federally Funded Research and Development Center (FFRDC) Contractor, if applicable.**

If a DOE/NNSA FFRDC contractor or DOE National Laboratory is to perform a portion of the work, you must provide a DOE Field Work Proposal in accordance with the requirements in DOE Order 412.1 Work Authorization System. This order and the DOE Field Work Proposal form are available at https://www.directives.doe.gov/directives/current-directives/412.1-BOrder-a/view . Use the FFRDC name as the file name (up to 10 letters) and attach to the R&R Other Project Information form in Field 12 - Add Attachments.

**Environmental Questionnaire**

You must complete the environmental questionnaire (451.1-1/3) for each geographic location where activities will be conducted for the project. This will facilitate a National Environmental Policy Act determination by DOE for the project activity site(s). This form is available for download at: http://www.netl.doe.gov/business/business-forms#FUNDING . Save the questionnaire in a single file named "Env.pdf" and click on "Add Attachments" in Field 12 to attach.

**3. RESEARCH AND RELATED SENIOR/KEY PERSON**

Complete this form before the Budget form to populate data on the Budget form. Beginning with the PD/PI, provide a profile for each senior/key person proposed. A senior/key person is any individual who contributes in a substantive, measurable way to the scientific/technical development or execution of the project, whether or not a salary is proposed for this individual. Subrecipients and consultants must be included if they meet this definition. For each senior/key person provide:

Biographical Sketch. Complete a biographical sketch for each senior/key person and attach to the "Attach Biographical Sketch" field in each profile. 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.

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 subrecipients, 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. Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review. Save the information in a separate file and attach to the "Attach Current and Pending Support" field in each profile.

**4. RESEARCH AND RELATED BUDGET (TOTAL FED + NON-FED)**

Complete the Research and Related Budget (Total Fed & Non-Fed) form in accordance with the instructions on the form 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 Section IV.G).

Budget Justification (Field K on the form).

Provide the required supporting information for the following costs (See R&R 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.

**5. R&R SUBAWARD (TOTAL FED + NON-FED) FORM**

Budgets for Subrecipients, other than DOE FFRDC Contractors. You must provide a separate cumulative R&R budget for each subrecipient that is expected to perform work estimated to be more than $100,000 or 50 percent of the total work effort (whichever is less). Download the R&R Budget Attachment from the R&R SUBAWARD BUDGET (Total Fed + Non-Fed) FORM and e-mail it to each subrecipient that is required to submit a separate budget. After the Subrecipient 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 subrecipient's name as the file name.

**6. 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 2 digit state code followed by a dash and a 3 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.

**7. DISCLOSURE OF LOBBYING ACTIVITIES (SF-LLL)**

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 and 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 |
| Project Management Plan | PDF | Field 12 |
| Commitment Letters from Third Parties | PDF | Field 12 |
| Budget for DOE/NNSA FFRDC, if applicable | PDF | Field 12 |
| Environmental Questionnaire | PDF | Field 12 |
| **RESEARCH & RELATED SENIOR/KEY PERSON Profile (Expanded) (Optional)** | Form | N/A |
| Biographical Sketch | PDF | Attach to appropriate block |
| Current and Pending Support | PDF | Attach to appropriate block |
| **RESEARCH AND RELATED BUDGET (Total Fed + Non-Fed)** | Form | N/A |
| Budget Justification | PDF | Field K |
| **R&R SUBAWARD BUDGET (Total Fed + Non-Fed) ATTACHMENT(S) FORM, if applicable** | Form | N/A |
| **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/NNSA 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. Pre-application Due Date:**

Pre-applications Are Not Required

**2. Application Due Date**

**Applications Due Date 11:59 PM**

Applications must be received by 04/06/2015, not later than 11:59:59 PM Eastern Time. You are encouraged to transmit your application well before the deadline. The Grants.gov Helpdesk is available for extended periods; please check their website for the Helpdesk hours of operation. 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**

Funding for all awards, future budget periods and future Phases are contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority.

Cost Principles. Costs must be allowable, allocable and reasonable in accordance with the applicable Federal cost principles referenced in 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation). The cost principles for commercial organization are in FAR Part 31.

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 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation). 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**

**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](mailto:support@grants.gov).

You must COMPLETE the one-time registration process (all steps) before you can submit your first application through Grants.gov (See <http://www.grants.gov/applicants/get_registered.jsp>). We recommend that you start this process at least six weeks before the application due date. It may take 44 days or more to complete the entire process. See the the Grants.gov web page for Registering as an Organization at http://www.grants.gov/web/grants/applicants/organization-registration.html to guide you through the process. [IMPORTANT: During the SAM 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). The EBIZ POC will need the MPIN to complete the Grants.gov registration process.] When you have completed the Grants.gov registration process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step.

**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

# **Section V - APPLICATION REVIEW INFORMATION**

# **A. CRITERIA**

**1. Initial Review Criteria**

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the funding opportunity announcement has been submitted; and (3) the proposed project is responsive to the objectives of the funding opportunity announcement. Applications that fail to pass the initial review will not be forwarded for merit review and will be eliminated from further consideration.

**2. Merit Review Criteria**

Applications submitted in response to this FOA that pass the initial review described above, will be evaluated and scored in accordance with the three merit review criteria and corresponding weights listed below.

Criterion 1. Scientific and Technological Merit - 40%

* Thoroughness of the description of the proposed technology and degree to which the proposed technology or methodology meets the stated objectives of the funding opportunity announcement.
* Degree to which the proposed research identifies and/or makes progress on new/existing concepts.
* Degree to which the Applicant comprehensively advances arguments and provides details that clearly distinguishes the proposed R&D and why it is needed now relative to prior work, existing literature, or ongoing publicly available and known studies in the industry.
* Feasibility of the proposed concept; the degree to which the proposed work is based on sound scientific and engineering principles.
* Likelihood of developing a new successful technology.
* Anticipated benefits of the proposed work in comparison to current commercial and emerging technologies.

Criterion 2. Technical Approach and Understanding - 40%

* Adequacy and feasibility of the Applicant’s approach to achieving the funding opportunity announcement’s stated objectives.
* Feasibility, appropriateness, rationale, and completeness of the proposed Statement of Project Objectives, such that there is a logical progression of work.
* The adequacy and completeness of the Project Management Plan (PMP) in establishing baselines (technical scope, budget, schedule) and in managing project performance relative to those baselines; defining the actions that will be taken when these baselines must be revised; and identification of strategies for controlling risks to successful project completion.

Criterion 3. Technical and Management Capabilities - 20%

* Demonstrated experience of the applicant and partnering organizations in the technology areas addressed in the application and in managing similar projects.
* Credentials, capabilities, and experience of key personnel and partnering organizations (if applicable).
* Clarity and likely effectiveness of the project organization, including sub-recipients or partners, to successfully complete the project.
* Adequacy and availability of proposed personnel, facilities, and equipment to perform project tasks.
* Documented partnerships with SOFC manufacturers/developers.

**Program Policy Factors:**

The selection official will consider the following program policy factors in the selection process:

* It may be desirable to select for award a group of projects that represents a diversity of technical approaches and methods.
* It may be desirable to support complementary and/or duplicative efforts or projects that, when taken together, will best achieve the research goals and objectives.
* It may be desirable that different kinds and sizes of organizations be selected for award in order to provide a balanced programmatic effort and a variety of different technical perspectives.
* It may be desirable, because of the type of projects envisioned, or limitations of past efforts, to select for award a group of projects with a broad or specific geographic distribution.
* It may be desirable to select a project(s) for award of less technical merit than another project(s), if such a selection will optimize use of available funds by allowing more projects to be supported while not being detrimental to the overall objectives of the program.
* It may be desirable to select for award project(s) that reduce Federal investment and maximize corporate commitment, as demonstrated by cost share levels or other resource leveraging (e.g., in-kind contributions) that exceeds 20%.
* It may be desirable to select for award project(s) that present lesser schedule, budget, and technical consequences and risks resulting from environmental factors.

# **B. REVIEW AND SELECTION PROCESS**

**1. Merit Review**

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Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance." This guide is available at <http://energy.gov/management/office-management/operational-management/financial-assistance> under Financial Assistance Policy and Guidance.

**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 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation); 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 anticipates notifying applicants selected for award by June 26, 2015, and making awards by August 14, 2015

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# **Section 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 Section IV.G with respect to the allowability of pre-award costs.)

**Non-selected Notification**

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 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation); (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 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation).

**Foreign National Involvement**

All applicants selected for an award resulting from this FOA may be required to provide information to the Department of Energy (DOE) in order to facilitate our responsibilities associated with foreign national access to DOE sites, information, technologies, equipment, programs or personnel. A ”foreign national” is defined as any person who was born outside the jurisdiction of the United States and is a citizen of a foreign government, and has not been naturalized under U.S. law. If the selected applicant, including subrecipients/contractors, anticipates utilizing a foreign national in the performance of an award, the selected applicant may be responsible for providing to the DOE representative specific information on the foreign national(s) to satisfy compliance with all of the requirements for access approval. Access approval for individuals from countries identified on the U.S. Department of State list of [State Sponsors of Terrorism](http://www.state.gov/j/ct/list/c14151.htm) must receive final approval authority from the Secretary of Energy before the individual can commence work.

**DUNS and SAM Requirements**

Additional administrative requirements for DOE Grants and Cooperative Agreements are contained in 2 CFR, Part 25 (See: <http://www.eCFR.gov>). Prime awardees must keep their data in the System for Award Management (SAM) at <http://www.sam.gov> current. SAM is the government-wide system that replaced the CCR. If you had an active registration in the CCR, you have an active registration in SAM. Subawardees at all tiers must obtain DUNS numbers and provide the DUNS numbers 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://www.eCFR.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 System for Award Management (SAM).

**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://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms> under Award Terms.

The National Policy Assurances To Be Incorporated As Award Terms are located at http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms under Award Terms.

Intellectual Property Provisions. The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at:

<http://energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards>

Lobbying Restrictions. By accepting funds under this award, you agree that none of the funds obligated on the award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

**Corporate Felony Conviction and Federal Tax Liability Representations**

In submitting an application in response to this FOA the Applicant represents that:

(1) It is not a corporation that has been convicted (or had an officer or agent of such corporation acting on behalf of the corporation convicted) of a felony criminal violation under any Federal law within the preceding 24 months,

(2) No officer or agent of the corporation has been convicted of a felony criminal violation for an offense arising out of actions for or on behalf of the corporation under Federal law in the past 24 months,

(3) It is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

For purposes of these representations the following definitions apply:

A Corporation includes any entity that has filed articles of incorporation in any of the 50 states, the District of Columbia, or the various territories of the United States [but not foreign corporations]. It includes both for-profit and non-profit organizations.

**Statement of Substantial Involvement**

Recipient’s Responsibilities

The Recipient is responsible for:

• Performing the activities supported by this award in accordance with the Project Management Plan, including providing the required personnel, facilities, equipment, supplies and services;

• Managing and controlling project activities in accordance with established processes and procedures to ensure tasks and subtasks are completed within schedule and budget constraints defined by the current Project Management Plan;

• Implementing an approach to identify, analyze, and respond to project risks that is commensurate with the complexity of the project;

• Defining and revising approaches and plans, submitting the plans to DOE for review, and incorporating DOE comments;

• Coordinating related project activities with external suppliers, including contractors, to ensure effective integration of all work elements;

• Attending annual project review meetings and reporting project status;

• Submitting technical reports and publically releasable documents that incorporate DOE comments; and

• Presenting the project results at appropriate technical conferences or meetings as directed by the DOE Project Officer (number of external, non-DOE conferences/meetings will not exceed two (2) per budget period).

DOE Responsibilities

DOE is responsible for:

• Reviewing in a timely manner project plans, including project management, testing and technology transfer plans, and recommending alternate approaches, if the plans do not address critical programmatic issues;

• Participating in project management planning activities, including risk analysis, to ensure DOE’s program requirements or limitations are considered in performance of the work elements;

• Conducting annual project review meetings to ensure adequate progress and that the work accomplishes the program and project objectives. Recommending alternate approaches or shifting work emphasis, if needed;

• Integrating and redirecting the work effort to ensure that project results address critical system and programmatic goals established by the DOE Office of Fossil Energy, in coordination with the DOE Solid Oxide Fuel Cell Program;

• Promoting and facilitating technology transfer activities, including disseminating program results through presentations and publications;

• Serving as scientific/technical liaison between awardees and other program or industry staff; and

• Reviewing and concurring with ongoing technical performance to ensure that adequate progress has been obtained within the current Budget Period authorized by DOE before work can commence on the subsequent Budget Period as addressed within the appropriate provision of the Cooperative Agreement.

DOE has the right to intervene in the conduct or performance of project activities for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities. Suspension or termination of the cooperative agreement under 2 CFR part 200 as amended by 2 CFR part 910 (DOE Financial Assistance Regulation) does not constitute intervention in the conduct or performance of project activities.

**Reporting**

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Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. The checklist is available at: <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms> under Award Forms.

# **Section VII - QUESTIONS/AGENCY CONTACTS**

# **A. QUESTIONS**

Questions regarding the content of the announcement 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. DOE/NNSA 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 and comments concerning this FOA shall be submitted not later than one (1) calendar day prior to the application due date. Questions submitted after that date may not allow the Government sufficient time to respond.

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/NNSA cannot answer these questions.

# **B. AGENCY CONTACT**

Name: Mary Beth Pearse

E-mail: pearse@netl.doe.gov

**Questions: All questions shall be submitted in writing as outlined above through FedConnect. FOA questions should not be submitted via the above email and FOA questions will not be answered via the above email or via phone calls.**

# **Section VIII - OTHER INFORMATION**

# **A. MODIFICATIONS**

Notices of any modifications to this announcement 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.

# **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.

Funding for all awards and future budget periods are contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority.

# **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 [*Insert 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 H 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. PROGRAM COVERED UNDER SPECIAL PROTECTED DATA**

Special Protected Data Statutes. This program is covered by a special protected data statute. The provisions of the statute provide for the protection from public disclosure, for a period of up to five (5) years from the development of the information, of data that would be trade secret, or commercial or financial information that is privileged or confidential, if the information had been obtained from a non-Federal party. Generally, the provision entitled, Rights in Data-Programs Covered Under Special Data Statutes (Item 4 under 2 CFR 910 Appendix A to Subpart D), would apply to an award made under this announcement. This provision will identify data or categories of data first produced in the performance of the award that will be made available to the public, notwithstanding the statutory authority to withhold data from public dissemination, and will also identify data that will be recognized by the parties as protected data.

# **H. 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 see <http://www.energy.gov/gc/services/technology-transfer-and-procurement/office-assistant-general-counsel-technology-transf-1> for further information. 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. The DOE intends to pursue a class waiver covering this FOA.

# **J. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES**

Eligible activities under this program include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those which encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

# **K. CONFERENCE SPENDING (APRIL 2013)**

The recipient shall not expend funds for the purpose of defraying the cost to the United States Government of a conference [described in subsection (c) of the Consolidated and Further Continuing Appropriations Act, 2013] that was more than $20,000, or circumventing the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General or senior ethics official for any entity without an Inspector General, of the date, location, and number of employees attending such conference that is not directly and programmatically related to the purpose for which the grant or Cooperative Agreement was awarded.

# **L. FOREIGN ENTITY WAIVER REQUEST**

As set forth in Section III.A.3, all prime recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. If a foreign entity applies for funding as a prime recipient, it must designate a subsidiary or affiliate incorporated (or otherwise formed) under the laws of a State or territory of the United States to be the prime recipient.

To request a waiver for this requirement, the Applicant must submit a waiver request in the Full Application, which includes the following information: entity name, country (or state) of incorporation, description of the work to be performed by that entity, and the location where the work will be performed. If the applicant is seeking a waiver to have a foreign entity serve as the prime recipient, the applicant must explain why it is necessary to have a foreign entity serve as the prime recipient. Waiver requests should explain how the waiver would further the purposes of this FOA and otherwise serve the interests of the Department of Energy. The Contracting Officer may require additional information before considering the waiver request. Save the Waiver Request(s) in a single filed titled:

"LeadOrganization\_Waiver.pdf"

# **M. PERFORMANCE OF WORK IN THE UNITED STATES WAIVER REQUEST**

As set forth in Section III.D., at least 75.0% of the direct labor cost for the project (including subrecipient labor) shall be incurred in the United States, unless the Recipient can demonstrate to the satisfaction of the Department of Energy that the United States economic interest will be better served through a greater percentage of the work being performed outside of the United States.

To request a waiver for this requirement, the Applicant must submit a waiver request in the Full Application, which includes the following information: entity name, description of work to be performed outside the United States and the location where the work will be performed. Waiver requests should explain how the waiver would further the purposes of this FOA and otherwise serve the interests of the Department of Energy. The Contracting Officer may require additional information before considering the waiver request. Save the Waiver Request(s) in a single filed titled:

"PerformanceofWork\_Waiver.pdf"