FINANCIAL ASSISTANCE FUNDING OPPORTUNITY ANNOUNCEMENT



U. S. Department of Energy

National Energy Technology Laboratory

Recovery Act-Resource Assessment and Interconnection-Level

Transmission Analysis and Planning

Funding Opportunity Number: DE-FOA0000068

Announcement Type: Amendment 002

CFDA Number: 81.122 Electricity Delivery and Energy Reliability Research, Development and Analysis

Issue Date: August 7, 2009

Application Due Date: September 14, 2009 no later than 03:00:00

PM Eastern Time

The Funding Opportunity Announcement is hereby amended as follows:

1. The application due date is extended by four (4) weeks from August 14th, 2009 to September 14th, 2009

All changes have been highlighted in YELLOW throughout the Funding Opportunity Announcement.

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 FedConnect). Applicants who are not registered with CCR and FedConnect, should allow at <u>least 10 days</u> 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.

Applicants must register with the CCR. CCR website: http://www.ccr.gov/

Applicants must register with FedConnect to submit their application. FedConnect website: 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**.

Questions regarding the Funding Opportunity Announcement (FOA) only:

Questions regarding the content of the announcement must be submitted through the FedConnect portal once the FOA is issued. 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 http://www.compusearch.com/products/fedconnect/fedconnect.asp. DOE will try to respond to questions submitted regarding the FOA within 3 business days, unless a similar question and answer have already been posted on the website.

Questions pertaining to the **submission** of applications through FedConnect should be directed by e-mail to support@FedConnect.net or by phone to FedConnect Support at 800-899-6665.

Application Preparation and Submission

Applicants must download the application package, application forms and instructions, from Grants.gov. Grants.gov website: http://www.grants.gov/ (Additional instructions are provided in Section IV A of this FOA.)

Applicants must submit their application through the FedConnect portal. FedConnect website: www.fedconnect.net (Additional instructions are provided in Section IV H of this FOA.)

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PART I – FUNDING OPPORTUNITY DESCRIPTION

American Recovery and Reinvestment Act of 2009 (ARRA 2009)

Projects under this FOA will be funded, in whole or in part, with funds appropriated by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (Recovery Act or Act). The Recovery Act's purposes are to stimulate the economy and to create and retain jobs The Act gives preference to activities that can be started and completed expeditiously. Accordingly, special consideration will be given to projects that promote and enhance the objectives of the Act, especially job creation, preservation and economic recovery, in an expeditious manner.

Be advised that special terms and conditions may apply to projects funded by the Act relating to:

- Reporting, tracking and segregation of incurred costs;
- Reporting on job creation and preservation;
- Publication of information on the Internet:
- Access to records by Inspectors General and the Government Accountability Office;
- Prohibition on use of funds for gambling establishments, aquariums, zoos, golf courses or swimming pools;
- Ensuring that iron, steel and manufactured goods are produced in the United States;
- Ensuring wage rates are comparable to those prevailing on projects of a similar character;
- Protecting whistleblowers and requiring prompt referral of evidence of a false claim to an appropriate inspector general; and
- · Certification and Registration.

These special terms and conditions will be based on provisions included in Titles XV and XVI of the Act. The special terms and conditions can be found at http://management.energy.gov/policy_guidance/1672.htm.

The Office of Management and Budget (OMB) has issued Implementing Guidance for the Recovery Act. See M-09-10, Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009 and M-09-15, Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009. OMB will be issuing additional guidance concerning the Act in the near future. Applicants should consult the DOE website, www.energy.gov, the OMB website http://www.whitehouse.gov/omb/, and the Recovery website, www.recovery.gov regularly to keep abreast of guidance and information as it evolves.

Recipients of funding appropriated by the Act shall comply with requirements of applicable Federal, State, and local laws, regulations, DOE policy and guidance, and instructions in this FOA, unless relief has been granted by DOE. Recipients shall flow down the requirements of applicable Federal, State and local laws, regulations, DOE policy and guidance, and instructions in this FOA to subrecipients at any tier to the extent necessary to ensure the recipient's compliance with the requirements.

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related OMB Guidance. Applicants for projects funded by sources other than the Recovery Act should plan to keep separate records for Recovery Act funds and ensure those records comply with the requirements of the Act. Funding provided through the Recovery Act that is supplemental to an existing grant is one-time funding.

Applicants should require their first tier subawardees to obtain a DUNS number (or update the existing DUNS record) and register with the Central Contractor Registration (CCR).

Project Description

Objective

The objective of this Funding Opportunity Announcement is to facilitate the development or strengthening of capabilities in each of the three interconnections serving the lower 48 states of the United States, to prepare analyses of transmission requirements under a broad range of alternative futures and develop long-term interconnection-wide transmission expansion plans. The interconnections are the Western Interconnection, the Eastern Interconnection, and the Texas Interconnection.

Background

The President's goals relating to clean electricity cannot be achieved without an adequate electricity delivery system. Robust transmission and distribution networks are essential to enable the development, integration, and delivery of new renewable and other low-carbon resources, and the use of low-carbon electricity to displace petroleum-based fuels from the transportation sector.

As a matter of national interest, the United States needs to develop -- in each of the three interconnections -- robust high voltage transmission networks. The term "Interconnection" means a geographic area in which the operation of bulk-power system components is synchronized such that the failure of one or more of such components may adversely affect the ability of the operators of other components within the system to maintain reliable operation of the facilities within their control. The "lower 48" U.S. states are served by three interconnections: 1. the Western Interconnection, which covers most of Western North America, from the Rocky Mountains to the Pacific coast, 2. the Eastern Interconnection, which covers most of Eastern North America, extending from the foot of the Rocky Mountains to the Atlantic seaboard, excluding most of Texas, and 3. the Texas Interconnection, which covers most of the State of Texas.

Benefits of This Project

The successful completion of projects awarded as a result of this FOA will provide the following benefits:

- Regional, inter-regional, and interconnection-level coordination will be improved among
 electric industry organizations and states with respect to long-term electricity policy and
 planning. In the Eastern U.S., new interconnection-level entities are likely to be established
 to facilitate this coordination, perform needed analyses, and develop interconnection-level
 plans. In all parts of the U.S., such improved coordination is essential to achievement of
 timely development of additional low-carbon generation capacity and its associated
 transmission requirements.
- The quality of the information available to industry planners and state and federal policymakers and regulators will be substantially improved. For each interconnection, a balanced portfolio of electricity supply futures will be produced and maintained, and the transmission requirements associated with each future will be determined. States that need to develop strategies in coordination with their neighbors will be able to draw on a shared and transparent body of analyses.

- Long-term transmission requirements under a wide range of futures will become more apparent to many stakeholders. Broader awareness of the need for the key facilities included in collaboratively-developed transmission plans will facilitate more timely resolution of issues related to cost allocation and siting of these facilities.
- Facilitating and accelerating the development of important new transmission facilities will, in many cases, facilitate and accelerate the development of renewable or other low-carbon generation capacity.

Topic Areas of Interest

This solicitation covers two broad topics. Topic A is Interconnection-Level Analysis and Planning. Topic B is Interconnection. Under each topic, the Department expects to make three awards, corresponding to the three geographic areas served by the three interconnections. To facilitate increased collaboration on resource and transmission planning among the states at the regional level, DOE will consider making awards under Topic B to more than one Applicant in the Eastern Interconnection.

DOE seeks applications that will support and greatly expand ongoing resource assessment and regional and interconnection-level transmission analysis and planning. The results of the assessments and analyses are needed to inform stakeholders that participate in decision making concerning the development of major new long-distance transmission facilities and networks.

Interested parties may submit applications for more than one award, but an applicant doing so must submit a separate application for each award being sought. Applications will only compete with others in the Topic and Interconnection to which they are submitted.

Topic A, Interconnection-Level Analysis and Planning

An Applicant must show how it would satisfy the following requirements for the interconnection area to which they are applying:

- 1. The work to be performed must cover the entire Interconnection.
- 2. Analyses and planning must be developed and performed in a transparent and collaborative manner, and the study processes must be open to participation by state and federal officials, representatives from independent system operators (ISOs) and regional transmission organizations (RTOs), utilities, and relevant stakeholder bodies or non-government organizations (NGO's), including appropriate entities in Canada and Mexico. Discuss approach to ensure consensus among stakeholders on key issues.
- 3. The Applicant must establish a multi-constituency steering group that will provide strategic guidance to the Applicant's analysts on the scenarios to be modeled, the modeling tools to be used, key assumptions for the scenarios, and other essential activities. At least one-third of the members of the steering group shall be state officials.
- 4. The modeling tools and databases used and developed under an award by the Applicant will be public, and all events and meetings of study groups shall be open. The work to be performed will require the Applicant to have access to pertinent data from all electric utilities, generators, RTOs or ISOs, demand-side providers, and any other entities

relevant to transmission planning in the interconnection.

- 5. A portion of the funds provided by DOE shall be available, in accordance with applicable regulations, for travel costs and other expenditures required to enable representatives of relevant non-profit, non-governmental organizations (NGOs) to participate in the development of interconnection-level analyses and plans. Funding for state officials' participation in these activities will be provided through the awards made under Topic B.
- 6. The work performed by the Applicant shall give appropriate attention to the merits of alternative configurations of the interconnection's EHV (Extra High Voltage) AC and DC network. That is, the future network will be more than a collection of lines and facilities it must operate as an integrated system, and the Applicant must provide guidance to the affected governments and electric utilities and related organizations as to alternative configurations of major interest and their implications.
- 7. The work performed by the Applicant shall give special attention to technological uncertainties that could have major effects on future transmission requirements, such as the prospects for offshore wind generation (as compared to on-land wind), other offshore generation technologies such as ocean energy, batteries for plug-in electric vehicles, other energy storage technologies, on-site photovoltaic or other significant customer-based generation, better technological and geographic availability of baseload renewables, carbon capture and sequestration, advanced nuclear, and other relevant technologies. When appropriate, the Applicant shall reach out to experts on specific technologies at universities, DOE's national laboratories, and other appropriate organizations to obtain expert information needed for its analyses.
- 8. The work performed may include supporting analyses on topics such as variable generation integration studies, training of utility system planners and operators on variable generation and also interconnection planning, reliability analyses of alternative large transmission configurations, and improvements to modeling tools used by the entity that may include, but may not necessarily be limited to, how to better model demand-side measures, and also allow longer modeled timeframes.
- 9. The long-term transmission plans to be developed by the Applicant shall satisfy all reliability standards that have been approved by the Federal Energy Regulatory Commission. In addition, they shall achieve and balance the following objectives:
 - a. They must consider all available technologies (to the extent that they may become economic) for electricity generation, energy storage, transmission, end-use energy efficiency, demand resources, and management of transmission- and distribution-level facilities.
 - b. They must satisfy all current state and federal requirements (as of the date of the analysis underlying the plan(s)) for renewable energy goals, energy efficiency goals, and goals for reducing greenhouse gas emissions.
 - c. They must minimize the long-term costs of producing and delivering electricity to consumers.
 - d. They must minimize the overall long-term impacts of electricity supply activities on the environment.
 - e. They must provide a path for efficient grid development (e.g., build fewer but larger long-distance transmission lines).
- 10. The first version of the interconnection-level plan(s) shall be delivered to DOE no later

than June 30, 2011. An updated plan(s) shall be delivered to DOE no later than June 30, 2013.

NOTE: DOE intends for the recipients of awards under Topic A to be required to deliver at least one version of an interconnection-level plan by these due dates. However, it does not wish to preclude recipients from developing and delivering alternative plans if they think it would be beneficial to the public to do so. For example, a recipient might submit more than one plan in 2011, and then narrow its focus to a single plan in 2013. DOE invites Applicants to explain their views on this matter.

Topic B, Cooperation Among States on Electric Resource Planning and Priorities

The fundamental purpose of the awards under Topic B is to facilitate dialogue and collaboration among the states in the respective interconnections (or among state agencies, in the Texas Interconnection) and thus enable them to develop more consistent and coordinated input and guidance for the regional and interconnection-level analyses and planning that will be done under Topic A. The work to be performed under Topic B will vary somewhat among the three interconnections; therefore they are described separately below. Applicants may suggest additional work, related to an Interconnection that the Applicant believes would be especially relevant to the overall objectives of this Funding Opportunity Announcement.

<u>Cooperation Among States in the Western Interconnection on Electric Resource Planning</u> and Priorities

The Applicant should propose to complete the following at a minimum:

- Continued development of the Western Renewable Energy Zone (WREZ) analysis, currently
 performed by the Western Governors' Association (WGA) under DOE Cooperative
 Agreement (DE-FC26-08NT01788) in order to identify those areas in the West with vast
 renewable resources to expedite the development and delivery of renewable energy to
 where it is needed. Specifically, the following tasks are what the Applicant should propose to
 complete.
 - a. Coordinating Energy Purchasing from the WREZs
 - Aggregating demand for renewable energy can stimulate the development of commercial renewable generation and supporting transmission projects. Many public power, cooperative, state, federal and provincial electric systems have renewable energy procurement goals. Proposals to coordinate the purchasing cycles of regulated utilities are already under discussion. Yet the mechanisms to integrate renewable energy targets into state or region-wide procurement remain to be developed. The Applicant would need to work with stakeholders to bring together state and provincial utility commissions, utilities, and generators to increase the coordination of power purchasing to facilitate development of a region-wide market for renewable power, including the building of any cross-jurisdictional transmission needed to transport the purchased renewable-based electricity.
 - b. Fostering Interstate Cooperation for Renewable Energy Generation and Transmission

The WREZ initiative seeks to aggregate the regional demand for and supply of

renewable energy to benefit the entire region. This will require addressing the political and regulatory obstacles to the permitting and construction of cross jurisdictional transmission lines and renewable energy projects, as well as addressing any barriers to coordinated purchasing by load-serving entities. In pursuing solutions to these obstacles, the Applicant should address cost allocation issues and opportunities to streamline and coordinate inter-jurisdictional permitting processes. Also, the Applicant should describe how they would work with stakeholders to facilitate collaboration among the private sector and regulators to advance the goals of the WREZ initiative. While these are difficult issues, the viability of large-scale projects and the ability to meet Western Interconnection renewable goals may hinge on resolving them.

To prepare an application to finish the WREZ analysis, the Applicant will need to understand the current status of the WGA project. The status of the project can be determined from Quarterly Progress Reports available at the following FTP site: ftp://ftp.netl.doe.gov/pub/WREZ_Analysis/. Also, a complete description of the ongoing work, the background and results are available at http://www.westgov.org/wga/initiatives/wrez/.

- 2. Analyze current key issues related to reliable integration of variable and non-variable renewables (such as wind, concentrated solar, solar photovoltaics, ocean generation, storage, geothermal, hydro, ocean and other waterpower generation, and biomass for power production) into the Western Interconnection. The applicant may also consider collecting resource mapping information for options related to carbon capture and sequestration.
- 3. Propose and perform studies in coordination with state and federal wildlife officials on identification and uniform mapping of crucial wildlife habitats and migration corridors. The objective is to aid the development by each western state of its own "decision support system" (DSS) that is capable of compiling all data on wildlife relevant to the development of renewable and other generation capacity and associated transmission facilities. Each state's DSS is to be a GIS-based system that builds upon existing data. Full funding is not available through this FOA to complete DSS's for each state; rather, the intention is to provide a limited amount of seed funding to verify the approach and scope out problems associated with its application. Better information on wildlife habitats and migration corridors would improve key decisions affecting the development of energy facilities in the West and other land uses.
- 4. Develop other inputs relevant to planning and coordination as needed to go into the interconnection-level analyses prepared under Topic A.
- 5. Provide insight into the economic and environmental implications of the alternative electricity supply futures and their associated transmission requirements developed for the Western Interconnection under Topic A.
- 6. Demonstrate (and develop if necessary), a process for reaching decisions and consensus appropriate for an interconnection-wide entity representing all of the States and Provinces in the Western Interconnection so as to participate in the development and updating of the long-term interconnection-level plan under Topic A. This process shall be open to all relevant technologies and afford ample opportunity for participation by state governors, provincial ministers, their designees, and state or provincial utility regulatory officials.

Cooperation Among States in the Eastern Interconnection on Electric Resource Planning

and Priorities

The Applicant should propose to complete the following at a minimum:

- 1. Identify Eastern Energy Zones of particular interest for low- or no-carbon electricity generation (e.g., renewable-rich areas with suitable topographic and other characteristics for either variable or baseload generation, including non-terrestrial areas particularly suited to offshore wind and ocean power technologies, areas with geology or other characteristics particularly suited to carbon capture and sequestration (CCS), or areas otherwise particularly suited to other forms of low- or no-carbon electricity generation). The applicant is expected to allow for regional diversity and determine how the identification of Eastern Energy Zones could best serve the collective interests of the affected states.
- 2. Propose studies on key issues related to reliable integration of variable renewables into the Eastern Interconnection, studies on availability of baseload renewables and other low-carbon resources, as well as any other studies needed to better enable member state participation in regional and interconnection-wide analyses and planning.
- 3. Develop other inputs as needed to go into the interconnection-level analyses prepared under Topic A.
- 4. Provide insight into the economic and environmental implications of the alternative electricity supply futures and their associated transmission requirements developed for the Eastern Interconnection under Topic A.
- 5. Demonstrate (and develop if necessary), a process for reaching decisions and consensus appropriate for an interconnection-wide entity representing all of the States and Provinces in the Eastern Interconnection so as to participate in the development and updating of the long-term interconnection-level plan under Topic A. This process shall be open to all relevant technologies and afford ample opportunity for participation by state governors, provincial ministers, their designees, and state or provincial utility regulatory officials.

<u>State Agency Input Regarding Electric Resource and Transmission Planning in the Texas</u> Interconnection

The Applicant should propose to complete the following at a minimum:

- Studies, if needed, to analyze issues related to reliable integration of variable renewables into the Texas Interconnection, availability of baseload renewables and other low-carbon resources as well as any other studies that the Applicant feels are needed to better enable participation in interconnection-wide analyses and planning.
- 2. Develop other policy inputs as needed to go into the interconnection-level analyses prepared under Topic A.
- 3. Participate in the development and updates of the long-term interconnection-level plan under Topic A., paragraph 4. Provide insight into the economic and environmental implications of the alternative electricity supply futures and their associated transmission

requirements developed for the Texas Interconnection under Topic A.

4. Demonstrate (and develop if necessary) an organizational structure or process that allows the governor or his designee(s) to be directly represented in matters germane to the interconnection-wide transmission analysis and planning under Topic A.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT

 DOE anticipates awarding cooperative agreements under this program announcement. (See Part VI.B.2 Statement of Substantial Involvement.)

B. ESTIMATED FUNDING

• The total DOE share of the awards to be made under this funding opportunity announcement will be up to \$60 million.

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 six awards under this announcement – one in each of the three interconnections under both Topics A and B. DOE will consider making awards under Topic B to more than one Applicant in the Eastern Interconnection.

E. PERIOD OF PERFORMANCE

• DOE anticipates making awards with project periods of 3-5 years.

F. TYPE OF APPLICATION

DOE will accept new applications under this announcement.

PART III - ELIGIBILITY INFORMATION

ELIGIBLE APPLICANTS

 All types of domestic entities are eligible to apply except DOE/NNSA National Laboratory Contractors, other Federal agencies, non-DOE 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.

A. COST SHARING

Cost-sharing is encouraged but not required for Topic A or Topic B. If cost sharing is
proposed, it should be stated as a percentage of total allowable cost. Total allowable cost is
defined as the sum of the Government share, including FFRDC contractor costs (if applicable)
and the recipient share of allowable costs. Any proposed cost share must come from nonFederal sources unless otherwise allowed by law.

B. OTHER ELIGIBILITY REQUIREMENTS

Federally Funded Research and Development Center (FFRDC) Contractors.

FFRDC contractors are not eligible for an award under this announcement, but they may be proposed as a team member on another entity's application subject to the following guidelines:

<u>Authorization for non-DOE/NNSA FFRDCs.</u> 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.

<u>Authorization for DOE/NNSA FFRDCs</u>. 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 ______ 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."

<u>Value/Funding.</u> 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.

<u>Cost Share.</u> 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.

<u>Responsibility</u>. 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.

PART IV - APPLICATION AND SUBMISSION INFORMATION

A. ADDRESS TO REQUEST APPLICATION PACKAGE

Application forms and instructions are available at Grants.gov. To access these materials, go to http://www.grants.gov, select "Apply for Grants," and then select "Download Application Package." Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package.

B. LETTER OF INTENT AND PRE-APPLICATION

Letter of Intent

Letters of Intent are not required.

Pre-application

• Pre-applications are not required.

C. CONTENT AND FORM OF APPLICATION - SF 424

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

1. SF 424 - Application for Federal Assistance

Complete this form first to populate data in other forms. Complete all required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the "Help Mode" (Icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 21 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. 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.

3. Other Attachments Form

Submit the following files with your application and attach them to the Other Attachments Form. Click on "Add Mandatory Other Attachment" to attach the Project Narrative. Click on "Add Optional Other Attachment," to attach the other files.

Project Narrative File - Mandatory Other Attachment

The project narrative must not exceed 35 pages, single spaced, including cover page, Statement of Project Objectives, table of contents, charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard 8.5" by 11" paper with 1 inch margins

(top, bottom, left, and right). EVALUATORS WILL ONLY REVIEW THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE. The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application, because the information contained in these sites will not be reviewed. See Part VIII.D for instructions on how to mark proprietary application information. To attach a Project Narrative, click "Add Attachment." Applicants must identify the topic and interconnection for which they are applying in the file name and in the project Narrative. For example an applicant proposing under Topic B work for the Eastern Interconnection should label the Project Narrative file "Project_B_Eastern.pdf." Each application must contain a unique title.

The project narrative must include:

- Project Objectives. This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
- Merit Review Criterion Discussion. The section should be formatted to address each of the merit review criterion and sub-criterion listed in Section V. A. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. DOE/NNSA 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. The justification for the proposed project should include a clear statement of the importance of the project in terms of the utility of the outcomes and the target community of beneficiaries.
- 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
- Pls' roles and administrative, technical, and scientific responsibilities for the project.
- <u>Facilities And Other Resources</u>: Identify the facilities (e.g., office, laboratory, computer, etc.) to be used at each performance site listed and, 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. Provide any information describing the other resources available to the project such as machine and electronics shops.
- o Equipment: List important items of equipment already available for this project and,

if appropriate, note the location and pertinent capabilities of each. If you are proposing to acquire equipment, describe comparable equipment, if any, already at your organization and explain why it cannot be used.

- Bibliography And References, If Applicable: Provide a bibliography for any references cited in the Project Narrative section. This section must include only bibliographic citations.
- 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 at any time. 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 Part.

PHASE I

Task 1.0 - Project Management and Planning

(Description includes work elements required to revise and maintain the Project Management Plan and to manage and report on activities in accordance with the plan)

Subtask 1.1

(Description)

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.

[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)

Project Summary/Abstract File

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. The project summary must not exceed one (1) page when printed using standard 8.5" by 11" paper with 1" margins (top, bottom, left and right) with font no smaller than 11 point. Save this information in a file named "Summary.pdf," and click on "Add Optional Other Attachment" to attach.

Resume File

Provide a resume for each key person proposed, including subawardees and consultants if they meet the definition of key person. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. Save all resumes in a <u>single</u> file named "bio.pdf" and click on "Add Optional Other Attachment" to attach. The biographical information for each resume must not exceed 2 pages when printed on 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right) with font no smaller than 11 point and should include the following information, if applicable:

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

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

<u>Publications</u>. Provide a list of up to10 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.

<u>Synergistic Activities</u>. List no more than 5 professional and scholarly activities related to the effort proposed.

• SF 424 A Excel, Budget Information – Non-Construction Programs File You must provide a separate budget for each year of support requested and a

cumulative budget for the total project period. Use the SF 424 A Excel, "Budget Information – Non Construction Programs" form on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm. You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G). Save the information in a single file named "SF424A.xls," and click on "Add Optional Other Attachment" to attach.

• Budget Justification File

You must justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers, and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget). Provide the name of your cognizant/oversight agency, if you have one, and the name and phone number of the individual responsible for negotiating your indirect rates. If cost sharing is required, you must have a letter from each third party contributing cost sharing (i.e., a party other than the organization submitting the application) stating that the third party is committed to providing a specific minimum dollar amount of cost sharing. In the budget justification, identify the following information for each third party contributing cost sharing: (1) the name of the organization; (2) the proposed dollar amount to be provided; (3) the amount as a percentage of the total project cost; and (4) the proposed cost sharing – cash, services, or property. By submitting your application, you are providing assurance that you have signed letters of commitment. Successful applicants will be required to submit these signed letters of commitments. Save the budget justification information in a single file named "Budget.pdf," and click on "Add Optional Other Attachment" to attach.

• ARRA 2009 Additional Budget Justification Information

Applications shall provide information which validates that all laborers and mechanics on projects funded directly by or assisted in whole or in part by and through funding appropriated by the Act are paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by subchapter IV of Chapter 31 of title 40, United States Code (Davis-Bacon Act). For guidance on how to comply with this provision, see http://www.dol.gov/esa/whd/contracts/dbra.htm.

Subaward Budget File(s)

You must provide a separate budget (i.e., budget for each budget year and a cumulative 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 (which ever is less). Use the SF 424 A Excel for Non Construction Programs. These forms are found on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm. Save each Subaward budget in a separate file. Use up to 10 letters of the subawardee's name (plus .xls) as the file name (e.g., ucla.xls or energyres.xls), and click on "Add Optional Other Attachment" to attach.

Commitment Letters

If a third party, (i.e., a party other than the organization submitting the application) proposes to provide 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.

The applicant must also include letters from project team members not proposing cost share indicating their willingness to serve in the role described in the application. Letters must be signed by a person authorized to commit the team member to participating on the team. The letter must be provided in a PDF format.

Save this information in a single file named "commit.pdf" and click on "Add Optional Other Attachments" to attach.

Project Management Plan

This plan should be no longer than eight (8) pages in length and formatted to include the following sections with each section including 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 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 <u>actual</u> 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 Optional Other Attachment" to attach

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

If a DOE/NNSA FFRDC contractor 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 http://management.energy.gov/business_doe/business_forms.htm. Use up to 10 letters of the FFRDC name (plus .pdf) as the file name (e.g., lanl.pdf or anl.pdf), and click on "Add Optional Other Attachment" to attach.

3. 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	File Name
Application for Federal Assistance – SF424	Form	N/A
Project/Performance Site Location(s)	Form	N/A
Other Attachments Form: Attach the following files to this form:	Form	N/A

Project Narrative File (page limit 35 pages)	PDF	Project.pdf*
Project Management Plan	PDF	Pmp.pdf
Project Summary/Abstract File	PDF	Summary.pdf
Resume File	PDF	Bio.pdf
SF 424A File - Budget Information for Non-Construction Programs	Excel	SF424A.xls
Budget Justification File	PDF	Budget.pdf
Subaward Budget File(s)	Excel	See Instructions
Budget for FFRDC Contractor, if applicable	PDF	See Instructions
Commitment Letters	PDF	Commit.pdf
SF-LLL Disclosure of Lobbying Activities, if applicable.	Form	N/A

^{*} Applicants must identify the topic and interconnection for which they are applying in the file name and in the project Narrative. For example an applicant proposing under Topic B work for the Eastern Interconnection should label the Project Narrative file "Project_B_Eastern.pdf." Each application must a unique title.

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 must be received by September 14, 2009 not later than 03:00:00 PM Eastern Time. You are encouraged to transmit your application well before the deadline. The Grants.gov Helpdesk is not available after 9:00 PM Eastern Time. 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

<u>Cost Principles</u> **Costs** must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. The cost principles for commercial organization are in FAR Part 31.

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

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

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit

APPLICATIONS MUST BE SUBMITTED THROUGH FEDCONNECT TO BE
 CONSIDERED FOR AWARD. Submit electronic applications through the FedConnect portal at www.fedconnect.net/. Information regarding how to submit applications via Fed Connect can be found at https://www.fedconnect.net/FedConnect/PublicPages/FedConnect Ready Set Go.pdf.

Further, it is the responsibility of the applicant, prior to the offer due date and time, to verify successful transmission.

2. Registration Process

• 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 Contract Registry (CCR), and register with FedConnect). Applicants, who are not registered with CCR and FedConnect, should allow at <u>least 10 days</u> to complete these requirements. It is suggested that the process be started as soon as possible.

Part 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 announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement.

2. Merit Review Criteria

Topic A – Interconnection-Level Analysis and Planning

Applications will only compete with others in the Topic and Interconnection to which they are submitted.

Criterion 1: Impact & Technical Understanding (40%)

- Degree to which the Applicant demonstrates a thorough understanding of resource assessment, transmission capacity, facilities and related technologies needed to maintain electric reliability in an interconnection under a wide range of alternative futures.
- Degree to which the long-term transmission plans achieve and balance the following objectives:
 - a. Satisfy all reliability standards approved by the Federal Energy Regulatory Commission (FERC).
 - Consider all available technologies (to the extent that they may become economic) for electricity generation, energy storage, transmission, end-use energy efficiency, demand management, and management of transmission- and distribution-level facilities.
 - c. Satisfy all current state and federal requirements for renewable energy goals, energy efficiency goals, and goals for reducing greenhouse gas emissions.
 - d. Minimize long-term electricity supply costs.
 - e. Minimize the overall long-term impacts of electricity supply activities on the environment.
 - f. Provide a path for efficient grid development (e.g., build fewer but larger longdistance transmission lines).
- Degree to which the Applicant's proposed analysis and long-term plan(s) cover the entire
 interconnection and presents an integrated approach and give adequate consideration to
 the merits of alternative configurations of the interconnections Extra High Voltage (EHV) AC
 and DC networks.

Criterion 2: Technical Approach and Project Management (35%)

- Adequacy and feasibility of the Applicant's approach to ensure that a broad and diversified range of scenarios and sensitivity cases are identified for study.
- Adequacy and feasibility of the Applicant's approach to address and resolve the most technically challenging aspects of developing long-term interconnection-wide transmission expansion plans.
- Appropriateness, rationale, and completeness of the proposed Statement of Project Objectives (SOPO).
- Adequacy of the Project Management Plan (PMP) to successfully accomplish project

- objectives (defined in SOPO) on time and within the proposed budget.
- Adequacy of the Applicant's assessment and proposed mitigation of risk (due to technological uncertainties that could have major effects on future transmission requirements) in long-term plan(s).
- Adequacy and feasibility of the Applicant's approach to enable representatives of relevant non-profit, non-governmental organizations to participate in the development of interconnection analyses and planning.
- Degree to which the project would be performed in a transparent and collaborative manner, and study processes would be open to significant stakeholder bodies, including appropriate entities in Canada and Mexico.
- Degree to which the Applicant's approach would lead to consensus (as much as possible) among the stakeholders on key issues.

Criterion 3: Relevant Experience, Capabilities and Organization of the Project Team (25%)

- Credentials, capabilities and experience of key personnel.
- Demonstrated experience of the project team (Applicant, consultants, subcontractors) in performing analysis and planning on power systems.
- Clarity, logic and likely effectiveness of project organization.
- Adequacy and composition of the multi-constituency steering group to provide strategic guidance to the Applicant.
- Degree of commitment of the project team as evidenced by letters of commitment from team members.
- Ability to deliver programmatic result and accountability objectives included in the American Recovery and Reinvestment Act of 2009.

Topic B - Cooperation Among States on Electric Resource Planning and Priorities

Applications will only compete with others in the Topic and Interconnection to which they are submitted.

Criterion 1: Impact & Technical Understanding (40%)

- Degree to which the Applicant demonstrates a thorough understanding of the need to facilitate dialogue among the states in the respective interconnections (or among state agencies, in the Texas Interconnection) and enable them to develop more consistent and coordinated inputs into the interconnection-level analyses and planning that will be done under Topic A.
- Degree to which the Applicant demonstrates a thorough understanding of the need to analyze policy issues related to reliable integration of variable and non-variable renewables into the interconnection.
- Degree to which the Applicant demonstrates a thorough understanding of the need to develop other relevant policy inputs to go into the interconnection-level analyses prepared under Topic A.
- Degree to which the Applicant demonstrates a thorough understanding of the need to
 provide insight into the economic and environmental implications of the alternative electricity
 supply futures and their associated transmission requirements developed for the
 interconnection under Topic A.
- Degree to which the Applicant demonstrates a thorough understanding of the need to participate in the development and updates of the long-term interconnection-level plan under

Topic A.

The following subcriteria are specific to the identified interconnections:

Western Interconnection

- Degree to which the Applicant demonstrates a thorough understanding of what is required to continue the Western Renewable Energy Zone Analysis currently performed by the Western Governors' Association (WGA under DOE Cooperative Agreement DE-FC-08NT01788.
- Degree to which the Applicant demonstrates a thorough understanding of the need to perform studies in coordination with state and federal wildlife officials on identification and uniform mapping of crucial wildlife habitats and migration corridors.

Eastern Interconnection

 Degree to which the Applicant demonstrates a thorough understanding of what is required to identify Eastern Energy Zones of particular interest for low-or no-carbon electricity generation.

Criterion 2: Technical Approach and Project Management (35%)

- Adequacy and feasibility of the Applicant's approach to facilitate stakeholder consensus and ensure accurate and timely inputs to the interconnection planning and analysis.
- Appropriateness, rationale, and completeness of the proposed Statement of Project Objectives (SOPO).
- Adequacy of the Project Management Plan (PMP) to successfully accomplish project objectives (defined in SOPO) on time and within the proposed budget.
- Adequacy of the Applicant's assessment and proposed mitigation of risk (due to technological uncertainties that could have major effects on future transmission requirements) in long-term plan(s).
- Degree to which the project will be performed in a transparent and collaborative manner.

Criterion 3: Relevant Experience, Capabilities and Organization of the Project Team (25%)

- Credentials, capabilities and experience of key personnel.
- Demonstrated experience of the project team (Applicant, consultants, subcontractors) to meet project objectives.
- Clarity, logic and likely effectiveness of project organization.
- Degree of commitment of the project team as evidenced by letters of commitment from team members, other than the Applicant.
- Ability to deliver programmatic result and accountability objectives included in the American Recovery and Reinvestment Act of 2009.

The following is an additional subcriterion specific to the **Texas Interconnection**

• Degree to which the Applicant's application demonstrates an organizational structure that allows the governor or his designee(s) to be directly represented in matters germane to the interconnection-wide transmission analysis and planning under Topic A.

3. Other Selection Factors

- During the selection process, the Selection Official may consider the following program policy factors in the selection process:
- 1. Desirability to select projects for award that offer cost share.
- 2. ARRA 2009 Application Review Information Criteria. Desirability to select projects for award that promote the goals of the American Recovery and Reinvestment Act of 2009, such as jobs creation and preservation

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 "Department of Energy Merit Review Guide for Financial
Assistance and Unsolicited Proposals." This guide is available under Financial Assistance,
Regulations and Guidance at http://www.management.energy.gov/documents/meritrev.pdf.

2. Selection

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

3. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/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 November 2, 2009 and making awards by December 31, 2009.

Part VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES

1. Notice of Selection

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

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

2. Notice of Award

A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes either as an attachment or by reference: (1). Special Terms and Conditions; (2). Applicable program regulations, if any; (3). Application as approved by DOE/NNSA.; (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.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

1. Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: http://ecfr.gpoaccess.gov). Grants and cooperative agreements made to universities, non-profits and other entities subject to OMB Circular A-110 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.

ARRA 2009 Award Administration Information

Special Provisions relating to work funded under American Recovery and Reinvestment Act of 2009, Pub. L. 111-5 shall apply. These provisions can be found at http://management.energy.gov/policy_guidance/1672.htm.

2. Special Terms and Conditions and National Policy Requirements

Special Terms and Conditions and National Policy Requirements

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at

http://management.energy.gov/business doe/business forms.htm.

The National Policy Assurances To Be Incorporated As Award Terms are located at DOE http://management.energy.gov/business doe/business forms.htm.

Intellectual Property Provisions

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

Statement of Substantial Involvement

RECIPIENT'S RESPONSIBILITIES. The Recipient is responsible for:

Performing the activities supported by this award, including providing the required personnel, facilities, equipment, supplies and services;

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

Managing and conducting the project activities;

Reporting at least quarterly (four times per year) on project cost, schedule and performance;

Reporting per requirements of the American Recovery and Reinvestment Act of 2009;

Alerting DOE management immediately of any substantial change that will seriously disrupt or prevent the completion of the project;

Attending periodic program review meetings and reporting project status;

Submitting technical reports and incorporating DOE comments; and;

Presenting the project results at appropriate technical conferences or meetings as directed by the DOE Project Officer.

DOE RESPONSIBILITIES. DOE is responsible for:

Reviewing all project deliverables and providing approvals/disapprovals and/or feedback to the Recipient in a timely manner.

Recommending direction or redirection of the work to assure that the objectives of the project will be met and that the work is progressing consistent with the stated goals of the American Recovery and Reinvestment Act of 2009.

Conducting periodic site visits and program review meetings to ensure adequate progress is being made and that the work accomplishes the program and project objectives. Recommending alternate approaches to the work or shifting work emphasis, if needed;

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

Participating on the steering committee to assure that the work is integrated as appropriate with other relevant Government initiatives.

Coordinating efforts among the three interconnections so that consistent and valuable results are produced by the Recipients.

C. REPORTING

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. For a sample Checklist, see http://management.energy.gov/documents/DOEF46002PolicyVersion.pdf

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the Funding Opportunity Announcement (FOA):

Questions regarding the content of the announcement must be submitted through the FedConnect portal once the FOA is issued. All questions must be received ten (10) calendar days prior to the closing date of the FOA. 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

http://www.compusearch.com/products/fedconnect/fedconnect.asp. DOE will try to respond to questions submitted regarding the FOA within 3 business days, unless a similar question and answer have already been posted on the website.

B. AGENCY CONTACT

Name: Meghaan D. Hampton

E-mail: meghaan.hampton@netl.doe.gov

FAX: 304-285-4683

PART 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. More information is available at http://www.fedconnect.net and http://www.compusearch.com/products/fedconnect.asp.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

Patentable ideas, trade secrets, proprietary or confidentional 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

<u>Patent Rights</u>. 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.)

<u>Rights in Technical Data</u>. 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.