

# **Biomass Research and Development Initiative**

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*2003 Request for Proposals*

**Joint solicitation by**

**United States Department of Agriculture**

And the

**United States Department of Energy**

**March 18, 2003**

AGENCY: Natural Resources Conservation Service (NRCS), United States Department of Agriculture (USDA) on behalf of USDA and the U.S. Department of Energy (DOE)

ACTION: Announcement of availability of funds and request for proposals for projects for biomass research, development, and demonstration assistance in FY 2003.

SUMMARY: The U.S. Department of Agriculture and the U.S. Department of Energy jointly announce the availability of funds and solicit proposals for a grant under the Biomass Research and Development Act of 2000 and other authorities. Federal policy supports greater use of biomass based products, biomass feedstock production, and biomass processing and conversion. This solicitation for proposals is intended to promote greater innovation and development related to biomass.

RESPONSES: To respond to this solicitation, applicants must be eligible and submit proposals that respond to the priorities and related criteria in this solicitation.

Proposals in the appropriate number and form must be submitted to the following address no later than 4:00 p.m. on May 16, 2003

Mail address:

Management Services Division  
Natural Resources Conservation Service, USDA  
P.O. Box 2890  
Washington, DC 20013-2890  
ATTN: Sheila Leonard

Direct delivery address:

Management Services Division  
Room 5220 South Building  
Natural Resources Conservation Service, USDA  
1400 Independence Ave., SW  
Washington, DC 20250-0016  
ATTN: Sheila Leonard

CONTACT INFORMATION: For program information contact Merlin Bartz, Special Assistant, Natural Resources and the Environment at 202-720-7173. For administrative questions contact Sheila Leonard, Grant Officer, NRCS at 202-720-5436.

APPROVED: This request for proposals is approved for publication.

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Bruce Knight, Chief  
Natural Resources Conservation Service, USDA

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Date

## **General Information**

### **Legislative Authority and Background:**

The United States Department of Agriculture (USDA) and the United States Department of Energy (DOE) are collaborating on a Biomass Research and Development Initiative as directed under several statutory authorities. Section 9008 of the Farm Security and Rural Development Act of 2002 provided for a reauthorization of the Biomass Research and Development Act of 2000 and provided \$75 million in funding from the Commodity Credit Corporation (CCC) from 2002 through 2007. In addition, Section 2306 of the Energy Policy Act (PL 102-486) provides authority and requirements for financial assistance for programs covered by Titles XX through XXII of the Act. Through this Biomass Research and Development Initiative, grants are available to eligible entities to carry out research, development, and demonstrations on biobased products, bioenergy, biofuels, biopower, and related processes.

Grants will be awarded competitively, on the basis of:

1. technical merit, based on procedures that provide for scientific peer review by an independent panel of scientific and technical peers; and
2. program priorities that consider costs and preference for applications that:
  - a) involve a consortium of experts from multiple entities;
  - b) encourage the integration of disciplines and application of the best technical resources; and
  - c) demonstrate potentially viable market opportunities for bio-based products, bioenergy, biofuels, and biopower.

### **Purpose, Priorities, and Fund Availability**

The purposes of grants under this initiative are to --

- (1) encourage collaboration by a diverse range of experts in biomass production, handling, processing, and manufacturing for innovation-targeted research, technology development, and demonstration;
- (2) enhance creative and imaginative approaches toward biomass production, handling, processing, and manufacturing that will serve to develop and demonstrate the next generation of advanced technologies making possible low cost and sustainable biobased industrial products, biofuels, and biopower;
- (3) strengthen training, education, and practical experience of future scientists, engineers, managers, and business leaders in the field of biomass production, handling, processing, and manufacturing; and
- (4) promote integrated research partnerships among colleges, universities, national laboratories, Federal and State research agencies, and the private sector to address technical challenges that span multiple disciplines and of gaining better leverage from limited Federal research funds.

Higher priorities will be given to projects that:

- Demonstrate potential for significant advances in biomass production, handling, processing, and manufacturing;
- Demonstrate potentially viable distributed power generation opportunities using biomass suitable for moderate size operations, particularly addressing animal waste management issues;
- Improve understanding and ability to overcome technical and institutional barriers associated with connections to the commercial power grid and energy distribution and transmission system;
- Improve potential for developing rural based processing and manufacturing of biobased products and power production from biomass;
- Demonstrate potential to substantially further national objectives such as sustainable resource supply; reduced greenhouse gas emissions; healthier rural economies; and improved strategic energy security and trade balances; and
- Demonstrate commercial relevance of the proposal; expected marketability and potential commercial viability of biomass production, handling, processing, or manufacturing procedure and the biobased products that would be developed.

As an added resource, applicants may review the *Roadmap for Biomass Technologies in the United States* prepared by the Biomass Technical Advisory Committee. It can be found on the web at <http://www.bioproducts-bioenergy.gov/pdfs/FinalBiomassRoadmap.pdf>

Jointly, USDA and DOE will undertake a scientific technical evaluation of all proposals. Following that evaluation, USDA and DOE will independently undertake a programmatic review of all proposals and independently select suitable proposals for funding consistent with the technical merit evaluation and the priorities and criteria specified in this solicitation. There is no commitment by USDA or DOE to fund any particular proposal or to make a specific number of awards. Instead, applicants are encouraged to submit proposals that have substantial technical merit and address the priorities identified in this solicitation.

USDA intends to make up to \$16 million available to fund proposals of merit under this solicitation. DOE intends to make up to \$5 million available to fund proposals of merit under this solicitation. The Federal share of awards is expected to range in dollar amount from \$250,000 to \$2,000,000 with the work proposed to be completed within a three year time frame.

### **Funding Restrictions**

For this solicitation, a minimum non-Federal share of 20 percent of total project cost is required. A greater priority for project acceptance will occur with a higher non-Federal contribution to project costs.

Successful proposals will not receive funding from both USDA and DOE under this solicitation.

## **Eligibility**

Eligible applicants include:

- a) An institution of higher education
- b) A national laboratory
- c) A Federal research agency
- d) A state research agency
- e) A private sector entity
- f) A nonprofit organization
- g) A consortium of two or more entities described in a) through f) above

## ***Program Description***

### **Program Area Description**

The purpose of this solicitation is to implement the Biomass Research Development Act of 2000 as follows: stimulate research, development, and demonstration of technologies resulting in diversification of biobased products with emphasis on development of co-products that enhance the economic viability of biomass processing and manufacturing, including energy, that can be sustainably and cost-competitively produced from biomass; stimulate the use of biobased products currently commercially available; and ensure that applicable research technologies are disseminated and are adapted by communities where appropriate and viable.

A multidisciplinary approach that integrates partnerships among experts in academia, national laboratories, Federal and state research agencies, and the private sector is encouraged as the best means of overcoming technical challenges and in moving processes and products into and through the demonstration phase. The multidisciplinary teams should have adequate expertise and resources to resolve technical, economic, and environmental obstacles, culminating in pilot projects that will generate data for potential scale-up to commercial activities. Proposals must demonstrate potential for significant advances in biomass production, handling, processing, and manufacturing that will have national impacts, such as sustainable resource supplies and healthier rural economies. To increase profitability to the farming, forestry, and rural business sectors, applicants are encouraged to develop proposals which include post-harvest processing and manufacturing activities with an emphasis, where appropriate, on production of co-products to enhance the economic viability of the project, that adds value at the local level, and promotes new business investment and job formation in rural America.

Research, development, and demonstration activities to address cost effective conversion of bio-based feedstocks to energy and products may include but are not limited to use of methane digesters for manure and other biomass materials, metabolic engineering of biological systems, enhanced fermentation processes, catalytic processing of chemical intermediates, biomass gasification, improved technologies for harvest, collection, transport,

storage and handling of forest and agricultural crop residue and feedstocks, and determining the effects on soil health from the collection of crop residues for processing versus leaving residues in the field.

Activities must include product development and testing with collection of data to conduct life cycle costing, and determination of environmental performance (e.g. reduced energy consumption, reduced green house gas emissions, waste management issues) and economic viability of products, technologies and/or integrated production systems, including cost benefit analysis, where appropriate.

In the implementation of the project, the applicant is strongly encouraged to use and document the use of commercially available biobased industrial products to the maximum extent practicable, e.g. using biodiesel or ethanol in vehicles, biolubricants in equipment, biosolvents for parts cleaning. Products supporting conservation of natural resources, such as use of recycled paper, are also encouraged.

The multidisciplinary team should demonstrate their strong commitment to the mission and facilitate timely dissemination of new discoveries and technology transfer through interaction with NRCS and CSREES or by bringing new products to the commercial marketplace, as appropriate. Research will determine the focus of outreach activities and conversely, the research and development should be market-driven.

### **Specific uses of grants:**

Under the legislation, grants may be used to conduct--

(1) research on process technology for overcoming the recalcitrance of biomass, including research on key mechanisms, advanced technologies, and demonstration test beds for--

(A) feedstock pretreatment and hydrolysis of cellulose and hemicellulose, including new technologies for--

- (i) enhanced sugar yields;
- (ii) lower overall chemical use;
- (iii) less costly materials; and
- (iv) cost reduction;

(B) development of novel organisms and other approaches to substantially lower the cost of cellulase enzymes and enzymatic hydrolysis, including dedicated cellulase production and consolidated bioprocessing strategies; and

(C) approaches other than enzymatic hydrolysis for overcoming the recalcitrance of cellulosic biomass;

(2) research on technologies for diversifying the range of products that can be efficiently and cost-competitively produced from biomass, including research on--

(A) metabolic engineering of biological systems (including the safe use of genetically modified crops) to produce novel products, especially commodity products, or to increase product selectivity and

- tolerance, with a research priority for the development of biobased industrial products that can compete in performance and cost with fossil-based products;
- (B) catalytic processing to convert intermediates of biomass processing into products of interest;
  - (C) separation technologies for cost-effective product recovery and purification;
  - (D) approaches other than metabolic engineering and catalytic conversion of intermediates of biomass processing;
  - (E) advanced biomass gasification technologies, including coproduction of power and heat as an integrated component of biomass processing, with the possibility of generating excess electricity for sale; and
  - (F) related research in advanced turbine and stationary fuel cell technology for production of electricity from biomass; and
- (3) research aimed at ensuring the environmental performance and economic viability of bio-based industrial products and their raw material input of biomass when considered as an integrated system, including research on-
- (A) the analysis of, and strategies to enhance, the environmental performance and sustainability of bio-based industrial products, including research on-
    - (i) accurate measurement and analysis of greenhouse gas emissions, carbon sequestration, and carbon cycling in relation to the life cycle of bio-based industrial products and feedstocks with respect to other alternatives;
    - (ii) evaluation of current and future biomass resource availability;
    - (iii) development and analysis of land management practices and alternative biomass cropping systems that ensure the environmental performance and sustainability of biomass production and harvesting;
    - (iv) the land, air, water, and biodiversity impacts of large-scale biomass production, processing, and use of bio-based industrial products relative to other alternatives; and
    - (v) biomass gasification and combustion to produce electricity;
  - (B) the analysis of, and strategies to enhance, the economic viability of bio-based industrial products, including research on-
    - (i) the cost of the required process technology;
    - (ii) the impact of co-products, including food, animal feed, and fiber, on bio-based industrial product price and large-scale economic viability; and
    - (iii) interactions between an emergent biomass refining industry and the petrochemical refining infrastructure; and
  - (C) the field and laboratory research related to feedstock production with the interrelated goals of enhancing the sustainability, increasing

productivity, and decreasing the cost of biomass processing, including research on--

- (i) altering biomass to make biomass easier and less expensive to process;
  - (ii) existing and new agricultural and energy crops that provide a sustainable resource for conversion to bio-based industrial products while simultaneously serving as a source for co-products such as food, animal feed, and fiber;
  - (iii) improved technologies for harvest, collection, transport, storage, and handling of crop and residue feedstocks; and
  - (iv) development of economically viable cropping systems that improve the conservation and restoration of marginal land; or
- (4) any research, development, and demonstration of technologies or processes consistent with the purposes and priorities of this initiative.

**Specific program priorities**

Of the array of eligible uses listed above, the specific program priorities for FY 2003 are shown below for DOE and USDA.

The DOE will consider applications *only* under categories (1) (A), (B) and (C) and (2)(A) thru (2)(E) above, with (2) (E) specifically addressing gas cleanup and conditioning systems.

USDA will consider applications addressing *any* of the areas authorized, with priority placed on categories (3) (A), (B), and (C) and (4).



## ***Preparation of a Proposal***

### **Submissions of proposals**

#### ***What to submit***

Each application has three component documents:

- Part I: A technical proposal of the project, including the required one (1) page non-confidential technical summary plus up to ten (10) pages of the project description, statement of objective, relevance to the priorities outlined in this solicitation, statement of work, and other related information as deemed necessary by the applicant. Proposals exceeding the 11 (1+10) page limit will not be considered.
- Part II: A statement of capability to carry out the project, including an identification of the applicant, including entities participating in a consortium arrangement, and key personnel as well as their experience, training, and capability for the project. (Please limit to no more than 15 pages)
- Part III: A cost proposal that indicates the amount of Federal funds requested and the matching resources provided by the applicant in order to carry out the project. (Please limit to no more than 15 pages)

See below for specific content required in each of these three documents.

Each application must be comprised of seven (7) paper copies of the proposal plus one electronic copy on a 3.5 inch diskette in a format that is capable of being read and copied using standard office software, such as MS Word.

#### ***When and where to submit proposals***

Proposals must be received by USDA no later than 4:00 p.m.(eastern daylight time) on May 16, 2003 at the following address:

Mail address:

Management Services Division  
Natural Resources Conservation Service, USDA  
P.O. Box 2890  
Washington, DC 20013-2890  
ATTN: Sheila Leonard

Direct delivery address:

Management Services Division  
Room 5220 South Building  
Natural Resources Conservation Service, USDA  
1400 Independence Ave., SW  
Washington, DC 20250-0016  
ATTN: Sheila Leonard

## **Content of Proposals**

Applications, with the three component parts identified above, must conform to the following requirements in order to be considered for funding under this solicitation:

1. Each proposal must have a cover page with a clear statement of the project name and the name of the application entity, and the identifying number of this solicitation.
2. A typed proposal must be on standard 8.5 x11 inch paper and must not have a font size smaller than 12 points.

### **Part I: The technical proposal**

3. Each proposal must have a one page, non-confidential technical summary that describes the work to be undertaken and the expected outcome and benefits relative to the priorities and evaluation factors included in this solicitation.
4. Following the technical summary page, the technical proposal, not exceed 10 pages in length, may be developed further with a project description and technical narrative to clearly and concisely discuss what is to be undertaken and expected benefits. This shall include a statement of work that outlines the specific tasks to be undertaken and their relationship.

### **Part II: The statement of capabilities**

5. The statement of capabilities must provide a concise identification and description of the ability of the applicant to implement the project as proposed, including project organization, structure and assignment of responsibilities among participants.
6. Each proposal must have a clear identification of the project participants, both as entities and key personnel that will be engaged in carrying out the project, including their credentials, experience, records of performance and other capabilities that can indicate that they are well suited to successfully complete the project objectives.
7. A description of the extent of collaboration and participation in the project among the participating entities and personnel.

### **Part III: The cost proposal**

8. Each proposal must have a cost proposal that provides a project budget and the applicants request for a specific amount of Federal funds under this solicitation. The cost proposal must show the matching or corresponding resources devoted to this project by the project applicant, including each of the participating entities in a consortium engaged to carry out the project as proposed.
9. Each proposal must include SF-424, Application for Federal Assistance and supporting standard forms SF-424a and SF-424b.

10. The cost proposal must provide a summary of proposed resources by Statement of Work task. The summary should include the following for the applicant and each participant:
  - i. The position title, number of hours and total cost for personnel proposed
  - ii. The total cost for travel
  - iii. Proposed equipment, supplies or other major expenses over \$5,000
  - iv. The total of all direct costs
  - v. The total indirect costs
  - vi. A summary of total project costs

## ***Review Process***

### **General**

All proposals received in response to this solicitation will be reviewed by the Department of Energy and the Department of Agriculture using a two step process. This includes a *joint* technical evaluation using a scientific peer review process. Secondly, a programmatic review process of all proposals will be conducted *independently* by DOE and USDA in considering selection for awards by each Federal department under their own legal authorities, funding, and indicated program priorities.

### **Technical Rating Criteria**

All proposals will be rated with a numerical score using the following technical rating criteria to include technical relevance and merit, approach, and capability.

These criteria are specified in detail below.

#### **Criterion 1: Technical Relevance and Merit**

**Weight: 40 percent**

The scientific and technical merit of the proposal will be evaluated considering the extent to which the project, if successfully carried out, will make an important contribution to address research, development, and demonstration activities for biomass as described in this solicitation. This criterion will be evaluated considering:

- Clarity and relevance of the project objectives
- Novelty, innovation, uniqueness, and originality of the project objectives
- Conceptual adequacy of the research, development, or demonstration proposed
- The demonstration of the current state of knowledge and/or technology
- The extent to which the proposed work will fill gaps in or advance the current knowledge or technology for the stated objectives.

**Criterion 2: Technical Approach****Weight: 30 percent**

The technical approach will be evaluated considering the clarity and technical strength of the approach to achieve the project objectives including the plan for each task and subtask, milestones and deliverables. This criterion will be evaluated considering:

- The technical feasibility of the proposed work.
- The clarity, completeness, adequacy and appropriate timing of the described tasks and the appropriateness of the interrelationships of the project tasks.
- The performance measures and milestones for evaluating progress with regard to key subtasks and/or deliverables.
- The strength of the key decision points for mitigating potential problems.
- Process for monitoring and evaluation.

**Criterion 3: Capability****Weight: 30 percent**

The capability and quality of the team directly engaged in carrying out the project will be evaluated considering the technical and management qualifications of all participating organizations and individuals, including subcontractors and consultants, to carry out the proposed effort, as well as the adequacy and appropriateness of the facilities planned for this work. This criterion will also be evaluated considering:

- The credentials, capabilities, experience (technical and managerial), record of proven performance, and availability of the key personnel assigned to the project that make them well suited to successfully achieve the project objectives.
- Strength of the project organization, structure, responsibilities and lines of authority, both technical and administrative. Note that the applicant must form a multi-disciplinary project team capable of the successful completion of the technical research as well as the commercialization of research results.
- The type, quality, availability and appropriateness of facilities, equipment, and materials to be utilized in carrying out the proposed work.
- The extent of beneficial collaboration across industry and academia.
- Current or recent government contracts, grants, cooperative agreements, or other work by the applicant and/or participants in this or related fields.

The maximum score for all of the above technical rating criteria is 100 points.

**Programmatic Review**

In evaluating an application for an award, the following criteria will be used:

- Technical rating score and associated written comments from technical reviewers concerning the strengths and weaknesses of the proposal.
- The cost proposal that specifies the amount of Federal funds requested and the value of resources expected to be invested by the project applicant in the effort, including the non-Federal cost share amount over and above the minimum specified elsewhere in this solicitation.

- Overall relevance of the project to current and future priorities of biomass research, development, and demonstrations for either of the two departments as outlined in the solicitation. This will be evaluated by DOE and USDA independently using the following factors:

Program policy factors for DOE include:

- Relevance for the specific DOE priorities identified in this solicitation.
- Academia led efforts with preference for proposals from university consortia and/or centers of excellence that can demonstrate an organizational research linkage with industry.
- Regional consortia led efforts focused on the development of biobased industrial products that can demonstrate an organizational linkage with industry.
- Note: If a consortium involves a national laboratory, no more than 25% of the total DOE federal funds may go to the national laboratory.
- Balance of the overall portfolio of DOE investments in biomass R&D.

Program policy factors for USDA include:

- Relevance for the priorities identified in this solicitation;
- Demonstrates potential for significant advances in biomass production, handling, processing, and manufacturing;
- Demonstration of potentially viable distributed power generation opportunities using biomass suitable for moderate size operations, particularly addressing animal waste management issues;
- Improves understanding and ability to overcome technical and institutional barriers associated with connections to the commercial power grid and energy distribution and transmission system;
- Improves potential for developing rural based processing and manufacturing of biobased products and power production from biomass;
- Demonstrates potential to substantially further national objectives such as sustainable resource supply; reduced greenhouse gas emissions; healthier rural economies; and improved strategic energy security and trade balances; and
- Commercial relevance of the proposal; expected marketability and potential commercial viability of biomass production, handling, processing, or manufacturing procedure and the biobased products that would be developed.

### **Award Decision Time**

Awards are expected to be announced in August of 2003. A notice of a grant award, in the form of a letter, will be sent to the successful applicant and will provide additional guidance and information to the grantee. A grant award document that incorporates the application will be executed shortly thereafter. USDA and DOE reserve the right to request certain

other administrative information and certifications required by existing rules and regulations for each respective Federal agency prior to actual execution of a grant award.

## **Additional Information**

### ***Cost Sharing***

A minimum cost share of 20 percent of total project cost is required by the applicant in order to be considered for an award under this solicitation. A higher cost share will improve the priority for acceptance as described elsewhere in this solicitation. For determining the non-Federal cost share amount, in-kind contributions (e.g., contributions of services or property; donated equipment, buildings, or land; donated supplies; or unrecovered allowable indirect costs) incurred as part of this project may be considered cost share as described under 7 CFR Part 3015 Subpart G, 10 CFR 600.123, 600.224 as well as OMB Circular A-110. All applicant cost sharing must come from non-Federal sources, such as private entities or persons, state or local governments, institutions, or any other sources that were not originally derived from Federal funds.

### ***Clarifications in applications***

The Federal government, acting through USDA or the DOE, may require applications to be clarified or supplemented to the extent considered necessary by the agency, either through additional submissions or oral presentations. Such determination of necessity and method of clarification is solely at the discretion and judgment of the agency.

### ***Confidential Aspects of Proposals and Awards***

When a proposal results in a grant, it becomes a part of the record of transactions for NRCS, available to the public upon specific request. Information that the Secretary of Agriculture or the Secretary of Energy determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked as such within the proposal. The original copy of a proposal that does not result in a grant will be retained by the agency for a period of one year. Other copies will be destroyed. Such a proposal will be released only with the consent of the applicant or to the extent required by law.

### ***Compliance with other laws***

Any award under this solicitation solely provides financial assistance in the form of a grant to the applicant in order to undertake the proposed project. It remains the sole responsibility of the applicant to satisfy any other Federal, state, or local laws, regulations, or requirements regarding implementation of the project.

### ***Withdrawal of applications***

A proposal may be withdrawn at any time prior to the final action thereon. A written request to withdraw an application must be submitted in writing by an authorized representative of the applicant to Sheila Leonard, Grant Officer, at the following address:  
Management Services Division

Natural Resources Conservation Service, USDA  
P.O. Box 2890  
Washington, DC 20013-2890  
ATTN: Sheila Leonard

***Catalog of Federal Domestic Assistance (CFDA) Number***

The CFDA number for this solicitation is 81.087. This number should be used on the required SF 424 that is part of the cost proposal within the application.

***Sub-Awards to debarred and suspended parties***

Applicants must not make any sub-award or permit any sub-award to any party which is debarred, suspended, or is otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549, “Debarment and Suspension”, or is otherwise ineligible for an award hereunder. The list of parties excluded from Federal procurement and non-procurement programs can be accessed through the Excluded Parties List System at <http://epls.arnet.gov>

***Definitions***

For purposes of this solicitation, the following definitions apply:

“**Agency**” means the United State Department of Agriculture, Natural Resources Conservation Service, or the United States Department of Energy, either or both acting on behalf of the Federal government.

“**Applicant**” means the legal entity or individual signing the application. This entity or individual may be one organization or a single entity representing a group of organizations (such as a consortium) that has chosen to submit a single application in response to a solicitation.

“**Application**” means the documentation submitted in response to a solicitation

“**Award**” means the written documentation executed by a Federal government grant officer or contracting officer, after an applicant is selected, which contains the terms and conditions for providing financial assistance to the applicant.

“**Biobased product**” means fuels, chemical, or power from biomass

“**Biomass**” means any organic matter that is available on a renewable or recurring basis, including agricultural crops and trees, wood and wood wastes and residues, plants (including aquatic plants), grasses, residues, fibers, and animal wastes, municipal wastes, and other waste materials.

“**Budget**” means the cost expenditure plan submitted in the application, including both the Federal government contribution and the applicant cost share

**“Consortium (plural consortia)”** means the group of organizations or individuals that have chosen to submit a single application in response to a solicitation

**“Contracting officer or grant officer”** means the Federal government official authorized to execute awards on behalf of USDA or DOE respectively and who is responsible for the business management and non-program aspects of the grant process

**“Cooperative agreement”** means a financial assistance instrument used by the Federal government to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support for stimulation authorized by Federal statute, and substantial involvement is anticipated between the government and the applicant during the performance of the contemplated activity.

**“Cost sharing”** means the respective share of total project costs required to be contributed by the applicant and by the Federal government. The required percentage of applicant cost share is to be applied to the total project cost rather than to the Federal government contribution alone.

**“Grant”** means a financial assistance instrument used by the Federal government to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support for stimulation authorized by Federal statute, and no substantial involvement is anticipated between the government and the applicant during the performance of the contemplated activity.

**“Key personnel”** means the individuals who will have significant roles in planning and implementation of the proposed project on the part of the applicant and participants.

**“Project”** means the set of activities described in an application or other document approved by the Federal government for financial assistance, whether such assistance represents all or only a portion of the support necessary to carry out those activities.

**“Project period”** means the total period of time indicated in an award during which the Federal government expects to provide support contingent upon satisfactory progress and available funds. A project period may consist of one or more years and may be extended by the Federal government.

**“Recipient”** means the organization, individual, or other entity that receives a financial assistance award from the Federal government under this solicitation and is financially accountable for the use of any Federal funds or property provided for the performance of the project, and is legally responsible for carrying out the terms and conditions of the award.

**“Total project cost”** means all the funds required to complete the effort proposed by the applicant, including Federal funds plus all other funds that will be committed by the applicant as cost sharing for the project.