

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



**U.S. DEPARTMENT OF ENERGY
Golden Field Office
Biomass Program**

IN PARTNERSHIP WITH



**U.S. DEPARTMENT OF AGRICULTURE
National Institute of Food and Agriculture**

**Biomass Research and Development Initiative
Funding Opportunity Number: DE-FOA-0000341
Announcement Type: Initial Posting 000
CFDA Number: 81.087 (DOE)**

Issue Date:	5/6/2010
Pre-Application Due Date:	7/13/2010 5:00 PM Eastern Time
Full Application Due Date:	11/15/2010 5:00 PM Eastern Time

Applications must be submitted via Grants.gov by the specified date and time as described in this FOA.

REGISTRATION AND APPLICATION SUBMISSION REQUIREMENTS

Registration Requirements: Allow at least 21 days to complete registrations.

To submit an application under this announcement, complete the following registrations:

1. Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, at <http://fedgov.dnb.com/webform>.
2. Register in the Central Contractor Registration (CCR) system, at <https://www.ccr.gov/>. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in CCR registration. These items are needed to submit applications in Grants.gov. Update your CCR registration annually.
3. Register in Grants.gov at <http://www.grants.gov/>. See the Organization Registration User Guide at <http://www.grants.gov/assets/OrgRegUserGuide.pdf>. The Applicant User Guide is at <http://www07.grants.gov/assets/ApplicantUserGuide.pdf>.
4. Register in FedConnect at <https://www.fedconnect.net/>; use “Register as a Vendor” link. To create an organization account, your organization’s CCR MPIN is required.

Where to Download the Application Package:

Download the Application Package for this announcement at <http://www.grants.gov/>. Click on the “Apply for Grants” link; then, click on the “Download a Grant Application Package” link and follow the instructions. Insert the announcement number to download the Application Package.

Where to Submit the Application Package:

APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD. Follow instructions in the User’s Guide (<http://www.grants.gov/assets/ApplicantUserGuide.pdf>) for application submissions. Applicants are responsible for verifying successful transmission, prior to the Application due date and time.

Where to Ask Questions About the Funding Opportunity Announcement Content:

To ask questions about the Funding Opportunity Announcement, use FedConnect at <https://www.fedconnect.net/>. You must be a registered user in the system and submit questions by sending messages in your FedConnect email box. Part VII of this announcement explains how to submit questions to the Department of Energy (DOE).

Where to Submit Questions About the Registrations or Systems:

Dun & Bradstreet: govt@dnb.com

Central Contractor Registration (CCR) system: <https://www.bpn.gov/ccr/contactccr.aspx>
By phone: 866-606-8220 or 334-206-7828 (8:00 a.m. to 8:00 p.m., Eastern Time)

Grants.gov: support@grants.gov
By phone: 1-800-518-4726 (24 hours/day except for [Federal Holidays](#))

FedConnect: support@FedConnect.net
By phone: 1-800-899-6665 (8:00 a.m. to 8:00 p.m., Eastern)

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SECTION I – FUNDING OPPORTUNITY DESCRIPTION

A. Overview

This section of the Funding Opportunity Announcement (FOA) contains information on the Department of Energy (DOE) and United States Department of Agriculture (USDA) programmatic objectives, administrative roles, and areas of interest addressed by this FOA. Section 9001(a) of the Food, Conservation, and Energy Act of 2008 (FCEA) (Pub. L. 110-246), re-authorized the Biomass Research and Development Initiative (BRDI) competitive grants program by amending section 9008 of the Farm Security, and Rural Investment Act of 2002 (FSRIA), as amended, (Pub. L. 107-171) (7 U.S.C. 8108). Collaboration between DOE and USDA on BRDI is directed under section 9008(e)(1) of FSRIA, as amended. Additionally, DOE provides funds guided by certain administrative provisions of the Energy Independence and Security Act of 2007 and the Energy Policy Act of 2005. Section 9008(e)(3) of FSRIA provides direction and guidance on the technical areas as described in BRDI. The technical areas are: (A) Feedstocks development, (B) Biofuels and biobased products development, and (C) Biofuels development analysis. These areas are described further under “Project Description.”

For fiscal year (FY) 2010 BRDI requires that funded projects integrate all three legislatively mandated technical areas. The intent of requiring integration is to encourage a collaborative problem-solving approach to all studies funded under BRDI, to facilitate formation of consortia, identify and address knowledge gaps, and accelerate the application of science and engineering for the production of sustainable biofuels, bioenergy and biobased products. For FY 2010 DOE anticipates funding one to two awards and USDA/National Institute of Food and Agriculture (NIFA) anticipates funding four to seven awards. Anticipated award size ranges from \$3 million to \$7 million per award.

B. Legislated Program Objectives

Both DOE and USDA have been given responsibility to support the development of a biomass-based industry in the United States. The objectives of this responsibility are specified in section 9008(e) of FSRIA, as amended, which requires the development of:

- (A) technologies and processes necessary for abundant commercial production of biofuels at prices competitive with fossil fuels;*
- (B) high-value biobased products –*
 - (i) to enhance the economic viability of biofuels and biopower;*
 - (ii) to serve as substitutes for petroleum-based feedstocks and products; and*
 - (iii) to enhance the value of coproducts produced using the technologies and processes; and*
- (C) a diversity of economically and environmentally sustainable domestic sources of renewable biomass for conversion to biofuels, bioenergy, and biobased products.*

DOE and USDA both support Federal initiatives and Agency programmatic goals pertaining to the development of a biomass-based industry; however, DOE and USDA support for these goals should not be interpreted by applicants as BRDI priorities for the peer review process. These initiatives and programmatic goals include the following:

- The Twenty-in-Ten Plan, established in the Clean Air Act of 1990 (42 U.S.C. 7545) as amended by the section 202 of the Energy Independence and Security Act 2007 (EISA 2007), requiring 36 billion gallons of biofuels by 2022 under the Renewable Fuel Standard;
- The Advanced Energy Initiative of 2006, calling for cost competitive cellulosic ethanol by 2012;
- USDA-NIFA's vision of agriculture and natural resource-based energy that enhance stewardship of our environment, sustainable and secure renewable energy resources, and vibrant and energy-efficient rural communities;
- DOE/EERE's Energy Efficiency and Renewable Energy's (EERE's) strategic goals of reducing dependence on imported oil and enabling a domestic bioindustry;
- USDA's Biopreferred Program that creates a market pull for new products and technologies (<http://www.biopreferred.gov/>); and
- DOE/EERE's Biomass Program Multi-Year Program Plan (<http://www.eere.energy.gov/biomass/pdfs/mypp.pdf>).

Background resource material, including the complete text of the BRDI legislation, can be found at the following websites:

- Section 9008 of the Farm Security and Rural Investment Act of 2002 (FSRIA), as amended, (Pub. L. 107-171) (7 U.S.C. 8108).
- *Roadmap for Biomass Technologies in the United States* prepared by the Biomass Technical Advisory Committee.
http://www.brdisolutions.com/Site%20Docs/Roadmap/OBP_roadmapv2_web.pdf
- *National Biofuels Action Plan*, developed by the Biomass Research and Development Board.
<http://www1.eere.energy.gov/biomass/pdfs/nbap.pdf>

C. Approach

To ensure a coordinated approach in meeting the objectives listed above, collaboration between DOE and USDA on BRDI is directed under section 9008(e)(1) of FSRIA, as amended, (7 U.S.C. 8108(e)(1)). To help Applicants understand the application sequence and the involvement of DOE and USDA in the review and selection process, the roles and responsibilities of DOE and USDA are summarized in the following table. Additional information regarding administration of this FOA is included in Sections III through VII.

Table 1 Summary of Agency Processes, Roles, and Responsibilities

Step	Description	Responsible	Comment
1	Develop FOA document	DOE and USDA joint effort	Includes all aspects of the FOA, including areas of interest, application process, and evaluation process.
2	Pre-Application submission and review process	DOE will administer these activities	Applicants <u>must</u> register on both Grants.gov and FedConnect. All potential applicants <u>must</u> submit a Pre-Application for a jointly supported peer panel review.
3	Selection for Full Application	DOE and USDA joint effort	Based on results of the Pre-Application review, a select number of applicants will be invited to submit a Full Application.
4	Full Application submission and review process	USDA will administer these activities	Submission of Full Applications is by invitation <u>only</u> . A jointly supported peer panel will review and rank Full Applications in order of suitability for funding.
5	Project Selection and negotiation for award of funds	DOE and USDA	DOE and USDA-NIFA will employ policy factors in selecting applications for funding. Applicants selected by DOE will work with DOE only, and will be subject to DOE's standard processes in accordance with applicable legislation, regulations and procedures. Applicants selected by USDA-NIFA will work with USDA-NIFA only, and will be subject to USDA-NIFA's standard processes in accordance with applicable legislation, regulations and procedures.
6	Project Awards	DOE and USDA	DOE will make awards separately from USDA-NIFA using standard DOE processes and internal controls in accordance with applicable legislation, regulations and procedures. USDA-NIFA will make awards using standard USDA-NIFA processes in accordance with applicable legislation, regulations and procedures.

D. Project Description

USDA-NIFA and DOE are soliciting applications that integrate all three of the technical areas listed in the FCEA:

- (A) Feedstocks Development,
- (B) Biofuels and Biobased Products Development, and
- (C) Biofuels Development Analysis.

As part of the Pre-Application submission, Applicants must include a project description that addresses the three technical areas. Applicants are encouraged to develop partnerships with other entities, as needed, to ensure that all three technical areas are adequately addressed (additional information on eligibility is provided in Section III). **Pre-Applications and Applications that do not address all three technical areas will not be reviewed.**

(A) Feedstocks Development – Research, development and demonstration activities regarding feedstocks and feedstock logistics (including harvest, handling, transport, preprocessing, and storage) relevant to production of raw materials for conversion to biofuels and biobased products.

The lack of logistics systems capable of handling and delivering sufficiently high tonnage of feedstocks year round to support the rapid escalation of cellulosic biofuels production has been identified as a significant barrier to the expansion of a sustainable domestic biofuels industry. Feedstocks or combinations of feedstocks that will be considered include: agricultural residues, energy crops (switchgrass, miscanthus, energycane, sorghum, poplar, willow, etc.), forest resources (forest thinnings, wood chips, wood wastes, small diameter trees, etc.), and urban wood wastes. Other feedstocks that will be considered include oilseed crops, animal waste and algae. Projects should include the use or development of the following:

- Dedicated biofuel or industrial product crops with desired features, including enhanced productivity, broader site range, low requirements for chemical inputs, and enhanced processing characteristics;
- Advanced crop production methods and management technologies and systems to achieve optimal yields while conserving soil and water resources;
- Innovative equipment designs and systems for harvest, handling, preprocessing, transport, and storage that will be compatible with the biomass conversion technology;
- Compatibility of the selected feedstock with potential conversion systems;
- Strategies for integrating feedstock production into existing managed land;
- Generation of data that can contribute to a best management practices database; and
- Development of tools that land managers and community developers can use to evaluate the technical and economic viability of biomass production systems; tools should integrate management, harvesting, and processing technologies and methods with economic analyses of utilization options for biofuels, bioenergy and biobased products.

(B) Biofuels and Biobased Products Development - Research, development and demonstration (R,D&D) activities to support:

- (i) Development of diverse cost-effective technologies for the use of cellulosic biomass in the production of biofuels and biobased products; and
- (ii) Product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogeneration power) that potentially can increase the feasibility of fuel production in a biorefinery.

The DOE Biomass Program has been focused on developing, demonstrating, and deploying cellulosic ethanol to enable a 2012 goal of making cellulosic ethanol cost-competitive with corn-based ethanol. Over the last two decades, research and development has led to significant progress in the biochemical processes used to convert cellulosic biomass to ethanol. First-generation technology for cellulosic ethanol production is now in the demonstration phase. USDA-NIFA and DOE will support other advanced biofuels, such as biobutanol, hydrocarbons and Fischer-Tropsch gasoline and diesel, which are still in the early stages of investigation in terms of production technologies, cost-effectiveness, and performance characteristics.

For FY 2010, DOE and USDA-NIFA have identified areas of particular interest for BRDI. These areas of interest will not be given a priority over applications that address other technologies and are not intended to deter submission of applications that address other technologies. Research, development, and demonstration projects of particular interest include, but are not limited to, technologies that would address:

- Small scale gasification and pyrolysis R,D&D to address issues of local and on-farm production of biofuels from cellulosic feedstocks;
- Research and development of local-scale woody biomass-to-energy conversion with a major thrust focusing on the simultaneous generation of electricity and useful heat;
- Conversion, via biological, thermal, catalytic or chemical means, of acceptable feedstocks into advanced biofuels and biobased products including intermediate and end-use products;
- Improvement of the production and performance or commercial viability of biobased products and co-products;
- Improvement of the potential for developing rural based processing and manufacturing of biofuels and biobased products;
- Demonstration of commercial relevance of the technology, its expected marketability, and its potential commercial viability for processing and manufacturing biobased products; and
- Field demonstration of biobased products for functional and environmental performance including comparison analysis with the petroleum-based counterparts to validate performance and to enable modification or development of industry standards and specifications; specific categories of interest include lubricants, hydraulic fluids, solvents and packaging materials.

Research, development, and demonstration projects of particular interest for Biochemical, Thermochemical, and Chemical conversions, based on known barriers to successful commercialization, include, but are not limited to, technologies that would address:

Biochemical Conversion

- Pretreatment technologies

- Hydrolysis and saccharification technologies that enhance advanced biofuels production
- Fermentation technologies for advanced biofuels
- Advanced bioprocessing technologies

Thermochemical Conversion

- Gasification
- Pyrolysis

Chemical Conversion

- Tolerance to inhibitory compounds
- Reduction of biomass components at mild conditions
- Selective dehydrations without side reactions
- Catalyst development for cleaving C-O and C-C bonds
- Cleavage of C-N bonds while preserving molecular structure

(C) Biofuels Development Analysis – This technical area addresses methods to quantify the proposed technology and/or the project’s positive impact on sustainability and on the environment; therefore, successful applications will consider the life-cycle (cradle-to-grave) impacts including environmental, social, and economic implications that are attributable to the project. As appropriate, the proposed project should include one or more of the following:

- (i) *Strategic guidance – The development of analysis that provides strategic guidance for the application of renewable biomass technologies to improve sustainability and environmental quality, cost effectiveness, security and rural economic development.*
- (ii) *Energy and Environmental Impact – Development of systematic evaluations of the impact of expanded biofuel production on the environment (including forest land) and on the food supply for humans and animals, including the improvement and development of tools for life cycle analysis of current and potential biofuels.*
- (iii) *Assessment of Federal land – Assessments of the potential of Federal land resources to increase the production of feedstocks for biofuels and biobased products, consistent with the integrity of soil and water resources and with other environmental considerations.*

To integrate Technical Area (C) with (A) and (B), the proposed project should consider the full life-cycle of the technology, which can be characterized by the following stages:

- Biomass feedstock development and cultivation;
- Feedstock harvesting and preparation;
- Feedstock logistics (handling, storage, and transportation);
- Biomass pre-processing (as appropriate);
- Biomass conversion;
- Production of biofuels/bioenergy/biobased products;
- Product logistics and distribution;
- Product consumption; and
- End of useful life.

SECTION II – AWARD INFORMATION

Applications received under this Announcement will be considered independently for funding from either DOE or USDA-NIFA, however, applicants may not request to be funded by a particular organization.

A. Type of Award Instrument

- DOE and USDA-NIFA anticipate awarding grants under this FOA.

B. Estimated Funding

- DOE funding is subject to annual appropriations. BRDI funding made available to USDA-NIFA is mandatory through FY 2012 pursuant to 7 U.S.C. 8108 (h)(1).
- All figures below should be treated as estimates.

Anticipated Federal Funding:	\$33 million
FY 2010 USDA-NIFA Federal Funding Amount:	\$28 million
Anticipated FY 2010 DOE Federal Funding Amount:	\$1 million
DOE Federal Funding Anticipated for FY 2011-2013:	\$4 million

C. Maximum and Minimum Award Size

- Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$7,000,000 (total, not per year)
- Floor (i.e., the minimum amount for an individual award made under this announcement): \$3,000,000 (total, not per year)

D. Expected Number of Awards

- Based on the FY 2010 competition, DOE anticipates making approximately 1-2 awards in FY 2011 under this announcement.
- Based on the FY 2010 competition, USDA-NIFA anticipates making approximately 4-7 awards in FY 2011 under this announcement.

E. Anticipated Award Size

- The average award size is anticipated to be approximately \$5.5 million. Section 9008(e)(6) of FSRIA, as amended, (7 U.S.C. 8108(e)(6)) requires that at least 15% of the available funds for BRDI be awarded under each of the 3 legislatively mandated technical areas.

F. Period of Performance

- DOE and USDA-NIFA anticipate making awards with project periods of up to 4 years.

G. Type of Application

- DOE and USDA-NIFA will accept **only** new applications under this announcement (i.e., applications for renewals of existing DOE/USDA-NIFA funded projects will not be considered).

SECTION III – ELIGIBILITY INFORMATION

A. Eligible Applicants

All entities listed under section 9008(e)(5) of FSRIA, as amended (7 U.S.C. 8108(e)(5)), are eligible to apply. Eligible entities are:

- (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; or*
- (G) a consortium of 2 or more entities described in subparagraphs (A) through (F).*

Applicants are encouraged to form consortia so that a range of capabilities is available to address all aspects of the three technical areas. Institutions of higher education include colleges and universities beyond the secondary education level. Private sector entities include companies, corporations, farms, ranches, cooperatives, and others that compete in the marketplace. DOE specific restrictions on consortia do not apply to USDA awards.

If an application proposes a Consortium, DOE will require that the Consortium structure consist of a Consortium Lead Organization (with associated Director and other key personnel) and Technical Partners who will conduct the technical scope of work described by the Consortium in collaboration with the Lead Organization. All participants must be clearly identified. The Consortium Lead should be focused on the coordination and management of the overall technical effort in addition to the strategy, approach, and expected outcomes. The Consortium Lead must describe how they will effectively maintain cohesiveness in a group of organizations having different corporate or operating cultures. DOE will expect this information to be included in the full application. It is anticipated that the award(s) will be made to the Lead Organization within the selected Consortium, with the technical partners as sub-recipients to the Lead Organization. DOE does not anticipate making awards to a joint venture or other special entity formed specifically for the purpose of carrying out a project under this FOA.

B. Cost Sharing

Cost Share 20% and/or 50%

Pursuant to section 9008(e)(6)(B) of FSRIA (7 U.S.C. 8108(e)(6)(B)), as amended, the cost share must be at least 20% of the total allowable costs for research or development projects and at least 50% of the total allowable costs for demonstration or commercial projects. The cost share must come from non-Federal sources unless otherwise allowed by law. The sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project (applicable cost sharing requirements for DOE are included in 10 CFR Part 600).

To ensure proper cost share determinations in their pre-applications, Applicants will be required to identify whether the Applicant is proposing a research, development, demonstration, or a commercial project.

The term “demonstration” is defined as demonstration of technology in a pilot plant or semi-works scale facility, including a plant or facility located on a farm.

C. Other Eligibility Requirements

DOE/NNSA National Laboratory Contractors and Other Federally Funded Research and Development Center (FFRDC) Contractors.

A DOE National Laboratory Contractor is eligible to apply for funding under this announcement if its cognizant Contracting Officer provides written authorization and this authorization is submitted with the application. If a DOE National Laboratory Contractor is selected for award by DOE, the proposed work will be authorized under the DOE work authorization process and performed under the laboratory’s Management and Operating (M&O) contract. The following wording is acceptable for the authorization:

Authorization is granted for the _____ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the missions of the laboratory, will not adversely impact execution of the DOE assigned programs at the laboratory, and will not place the laboratory in direct competition with the domestic private sector.

FFRDC contractors may be proposed as team members on another entity’s application, subject to the following guidelines:

Authorization for non-DOE FFRDCs. The Federal agency sponsoring the FFRDC contractor must authorize in writing the use of the FFRDC contractor on the proposed project and this authorization must be submitted with the application. The use of a FFRDC contractor must be consistent with the contractor’s authority under its award.

Authorization for DOE FFRDCs. The cognizant contracting officer for the FFRDC must authorize in writing the use of a DOE 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 complementary to the missions of the laboratory, will not adversely impact execution of the DOE assigned programs at the laboratory, and will not place the laboratory in direct competition with the domestic private sector.

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

Cost Share. For projects funded by DOE, 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. For projects funded by USDA-NIFA please see Section III. B. of this announcement.

FFRDC Contractor Effort:

- For projects funded by DOE, the FFRDC contractor effort, in aggregate, may be up to 100% of the total estimated cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

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

D. Multiple Principal Investigators

The assignment and use of multiple Principal Investigators (PIs) for projects submitted to this FOA is allowed. Additionally, PIs may collaborate on multiple projects. The applicant, whether a single organization or team/partnership/consortium, must indicate in the pre-application if the project will include multiple PIs. The decision to use multiple PIs for a project is the sole responsibility of the Applicant. If multiple PIs will be designated, the Applicant must identify in the application the Lead Contact PI/Project Coordinator . Each PI's roles and administrative, technical, and scientific responsibilities for the project should be described in the pre-application (see Section IV.B.2).

SECTION IV – PRE-APPLICATION AND SUBMISSION INFORMATION

A. Address to Request Application Forms

Pre-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 (also see subsection h of this Part B.2. below).

B. Application Information

1. Pre-application.

Pre-applications are required. You must complete the SF 424, attach your Pre-application Project Summary and Pre-application Project Narrative in the “Other Attachments Form,” and submit electronically through Grants.gov at www.Grants.gov.

As described in Section I.D – Project Description (page 7 of this document), all proposed projects submitted under this FOA must address all three technical areas. Pre-Applications and Applications that do not address all three technical areas will not be reviewed.

2. Pre-application Content and Format

The pre-application shall consist of an SF 424 “Application for Federal Assistance” form, a one page pre-application project summary, plus no more than a five page pre-application project narrative. Additional pages containing biographical data on senior members of the project team may be appended to the project narrative. The specific content and format of these documents is described in subsections on the following pages.

ONLY THE SF 424, THE ONE PAGE PRE-APPLICATION PROJECT SUMMARY, THE FIVE PAGE PRE-APPLICATION PROJECT NARRATIVE, PLUS APPENDED BIOGRAPHICAL INFORMATION, AS DESCRIBED HEREIN, ARE REQUIRED FOR A PRE-APPLICATION. THESE ARE THE ONLY DOCUMENTS THAT WILL BE REVIEWED. ADDITIONAL REQUIREMENTS AND FORMS DESCRIBED IN APPENDIX C ARE REQUIRED ONLY FOR APPLICANTS INVITED TO SUBMIT FULL APPLICATIONS AS A RESULT OF THE PRE-APPLICATION REVIEW PROCESS.

You must complete the mandatory forms and any applicable optional forms 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).**

Persons who have applied to this FOA in previous years should be aware that Grants.gov has phased out the use of the PureEdge software and has transitioned to use of Adobe Reader software. Applicants must use the compatible version of Adobe Reader software to complete a Grants.gov Adobe application package. To ensure you have the Grants.gov compatible

version of Adobe Reader, visit the download software page at http://www.grants.gov/help/download_software.jsp.

a. SF 424 - Application for Federal Assistance

Complete all required fields in accordance with the pop-up instructions on the form. In Block 15, along with the project title, indicate the type of project, i.e., research, development or demonstration. **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 at http://management.energy.gov/business_doe/business_forms.htm, under Certifications and Assurances.

b. Other Attachments Form

Submit the following files with your pre-application and attach them to the Other Attachments Form. Click on “Add Optional Other Attachment” to attach the one page pre-application project summary. Click on “Add Mandatory Other Attachment” to attach the five page pre-application project narrative, plus it’s biographical attachments (should all be combined into one PDF file).

Pre-application Project Summary File

The pre-application project summary uses a standard format that can be downloaded from FedConnect at <https://www.fedconnect.net/> (not Grants.gov). On the FedConnect website, click on “Search Public Opportunities,” then select “Issuing Office” and enter “Golden Field Office,” then click on “Search.” Once the screen comes up, click on the appropriate FOA in the list. There will be a box on the right called “Documentation” that includes a list of downloadable documents relating to the FOA. By clicking on “Summary Page” a Microsoft Word document will be downloaded to your computer.

This document should contain information about the proposed project that is suitable for dissemination to the public. Provide information in the blank boxes in accordance with the following:

- Name of Applicant Organization – enter the single entity that will be the primary recipient.
- Collaborating and/or Partner Organizations – if more than one organization or entity is participating in the project, list the other organizations here.
- Contact PI/Project Coordinator – the PI who will serve as the single point of contact for the project. See Section III.D.
- Other Principal Investigator(s) – if multiple PIs are included in the project, list the other PIs here.
- Project Title – enter the project title.
- City, state, and zip code where the project will be managed – use the location that best describes where the project will be managed/coordinated.
- Federal Funds Requested – enter the dollar amount being requested.
- Cost Share Provided – enter the dollar amount being contributed by the

applicant(s). (Please Note: USDA does not consider the cost share provided during the peer review process).

- Total Project Cost – enter the total project cost. This should be the sum of the Federal Funds and the Cost Share.
- Does the project address all three Technical Areas? Put an X by either “Yes” or “No.”
- TA 1 – Feedstocks Development: List the Proposed Feedstock(s) and Advanced Crop Production Method – this refers to Technical Area 1. Please provide a list of proposed feedstock(s) and method(s) that will be used by the project.
- TA 2 – Biofuels and Biobased Products development: List the Proposed Conversion Technology(s) – this refers to Technical Area 2. Please provide a list of technologies that will be used by the project.
- TA 3 – Biofuels Development Analysis: State the Proposed Sustainability Approach – this refers to Technical Area 3. Please state very briefly.
- Is the performance of bio-based products addressed in this proposal, as described in section 9002 Biobased Markets Program of the FCEA of 2008? Put an X by either “Yes” or “No”. Note that projects are not required to address this topic.
- Provide an Abstract in the box below – insert an abstract in the box provided.

Note that the pre-application project summary is a Microsoft Word table. The boxes will expand as information is typed into them.

THIS DOCUMENT MUST NOT INCLUDE ANY PROPRIETARY OR SENSITIVE BUSINESS INFORMATION AS THE DOE AND/OR USDA-NIFA MAY MAKE IT AVAILABLE TO THE PUBLIC. The pre-application project summary should not exceed 1 page when printed using standard 8.5” by 11” paper with 1” margins (top, bottom, left and right) with font not smaller than 10 point. Save the information in a single file named “Summary.pdf,” and click on “Add Optional Other Attachment” to attach.

Pre-application Project Narrative File

The pre-application project narrative should address the major aspects of the four merit evaluation criteria given below, and should include the type of project, i.e., research and development, or demonstration. **The pre-application project narrative must be organized into the following sections:**

1. Technical Relevance and Merit
2. Technical Approach/Work Plan
3. Energy Efficiency/Displacement, Rural Economic Development, Environmental Benefits
4. Technical, Management, and Facility Capabilities (if multiple PIs are planned, each PI’s roles and administrative, technical, and scientific responsibilities for the project should be described)

The pre-application project narrative must not exceed 5 pages when printed using standard 8.5” by 11” paper with 1” margins (top, bottom, left and right) with font not smaller than 11 point. Additional biographical information for senior members of the

project team may be appended to the project narrative, limited to one page per person and including up to the 10 most relevant publications. **EVALUATORS WILL REVIEW ONLY FIVE PAGES OF THE PROJECT NARRATIVE, PLUS APPENDED BIOGRAPHICAL INFORMATION.** Do not include any Internet addresses (URLs) that provide information necessary to review the application – the information contained in these sites will not be reviewed. See Part VIII.D for instructions on how to mark proprietary application information. Save the information in a single file named “Narrative.pdf,” and click on “Add Mandatory Other Attachment” to attach.

******PLEASE NOTE: ONLY PRE-APPLICATIONS SUBMITTED AS A PDF WILL BE ACCEPTED FOR REVIEW******

Pre-application - Summary of Required Forms/Files

The pre-application must include the following documents:

Name of Document	Format	File Name
SF 424	Adobe Form	N/A
Other Attachments Form: Attach the following files to this form:	Adobe Form	N/A
<ul style="list-style-type: none"> • Pre-application Project Summary File (1 page) 	PDF	Summary.pdf
<ul style="list-style-type: none"> • Pre-application Project Narrative File (5 pages plus appended biographical information) 	PDF	Narrative.pdf

c. Full Applications

Based on the results of the pre-application review, a select number of applicants will be invited to submit full applications. **FULL APPLICATIONS WILL BE ACCEPTED ONLY FROM ENTITIES OR ORGANIZATIONS THAT HAVE RECEIVED AN INVITATION TO SUBMIT THE FULL APPLICATION. NO OTHER FULL APPLICATIONS WILL BE REVIEWED.**

Minimum requirements for full applications are included in Appendix C of this FOA. All applicants are encouraged to review this information to make themselves aware of the expected content of a full application, should they be invited to submit one. The invitation to submit a full application will include additional instructions regarding submission and content of the full application.

d. Post-Selection

If selected for award, DOE/USDA-NIFA 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
- Matching documentation
- Name and phone number of the Designated Responsible Employee for complying

- with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Commitment Letter from Third Parties Contributing to Cost Sharing, if applicable
- Environmental Questionnaire

e. Submission Dates and Times

1. Pre-application Due Date.

Pre-applications must be received by July 13, 2010 at 5:00 PM Eastern Time (see Part IV.B.2). PRE-APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR INVITATION TO SUBMIT A FULL APPLICATION.

2. Anticipated Notice of Invitation to Submit Full Application.

After the pre-application review, selected Pre-Applicants will be invited to submit a full application. DOE/USDA-NIFA anticipates informing Pre-Applicants whether they are being invited to submit a full application or not by September 9, 2010.

3. Full Application Due Date.

Only applications from applicants invited to submit a full application will be considered. Applicants invited to submit full applications will be notified when full applications are due; at this time DOE/USDA-NIFA anticipates full applications to be due by November 15, 2010 by 5:00 PM Eastern Time. Applicants are encouraged to transmit their full application well before the deadline. APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

4. Anticipated Notice of Selection and Award Dates.

DOE/USDA-NIFA anticipate notifying applicants selected for award by January 31, 2011 and making awards by March, 2011.

f. Intergovernmental Review

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

g. Funding Restrictions

Projects may be funded by either USDA-NIFA or DOE, depending on the outcome of the review process and the interests of each agency; therefore, applicants should not attempt to tailor their applications toward one agency over the other. The following information is provided so that applicants will be aware of the requirements associated with each agency.

For Applications invited to be funded by DOE:

Cost Principles. 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 Federal Acquisition Regulations (FAR) Part 31.

Pre-award Costs. Recipients may charge to an award resulting from this announcement, pre-

award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 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.

If recipients are State or Local Governments, they may not incur pre-award costs prior to award without prior approval of the DOE contracting officer.

For Applications invited to be funded by USDA-NIFA:

Pursuant to section 1462(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3310(a)), **under this program indirect costs are limited to the lesser amount between the full negotiated rate for any institution or organization, including FFRDC and other Federal Agencies, or 22 percent.** Costs that are a part of an institution's indirect cost pool may not be reclassified as direct costs for the purpose of making them allowable.

USDA-NIFA has determined that grant funds awarded under this authority may not be used for the renovation or refurbishment of research, education, or extension space; the purchase or installation of fixed equipment in such space; or the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities.

Pre-award Costs. Recipients may charge 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 Section VI. B.1. of this announcement. Recipients must obtain the prior approval of the USDA-NIFA Authorized Departmental Officer (ADO) 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. USDA-NIFA 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. Submission and Registration Requirements

1. Where to Submit

APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD UNDER THIS ANNOUNCEMENT. You cannot submit an application through Grants.gov unless you are registered. Please read the registration requirements below carefully and start the process immediately. Submit electronic applications through the "Apply for Grants" function at www.Grants.gov.

If you have problems completing the registration process or submitting your application,

call Grants.gov at 1-800-518-4726 (24 hours/day, 7 days/week except for [Federal Holidays](#), when they are closed) or send an email to support@grants.gov. It is the responsibility of the applicant to verify successful transmission, prior to the application due date and time.

2. Registration Process Requirements

To submit an application in response to this FOA, applicants must be registered with Grants.gov. Register in Grants.gov at <http://www.grants.gov/>. See the Organization Registration User Guide at <http://www.grants.gov/assets/OrgRegUserGuide.pdf>. The Applicant User Guide is at <http://www07.grants.gov/assets/ApplicantUserGuide.pdf>. **ALLOW AT LEAST 21 DAYS TO COMPLETE ALL REGISTRATION REQUIREMENTS. The CCR registration must be renewed annually and is part of the Grants.gov registration. Applicants that have registered previously should ensure that all registrations are still active.**

Before you can register with Grants.gov, you will need the following:

- a) Your organization's Dun and Bradstreet Data Universal Numbering System (DUNS) (including plus 4 extension if applicable). To check whether your organization has a DUNS or if your organization requires a DUNS, search for the number or request one at <http://fedgov.dnb.com/webform/displayHomePage.do>. A DUNS number should be provided to you within 48 hours of registering on-line.
- b) A federal Central Contractor Registration (CCR) account. If your organization is not currently registered with CCR, please register at www.ccr.gov before continuing with your Grants.gov registration. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in CCR registration. These items are needed to submit applications in Grants.gov. Update your CCR registration annually. Registration with CCR generally takes three to five business days to complete.
- c) Registration in FedConnect at <https://www.fedconnect.net/>; use the "Register as a Vendor" link. To create an organization account, your organization's CCR MPIN is required; obtain the MPIN from your organization's Electronic Business Point of Contact. Refer to the FedConnect Quick Start guide at the website. Registration with FedConnect should take about one business day.

3. Electronic Authorization of Applications and Award Documents

Submission of an application and supplemental information under this announcement through electronic systems used by the Department of Energy, including Grants.gov and FedConnect, constitutes the authorized representative's approval and electronic signature.

Submission of award documents, including modifications, through electronic systems used by the Department of Energy, including FedConnect, constitutes the authorized representative's approval and acceptance of the terms and conditions of the award. Award acknowledgement via FedConnect constitutes the authorized representative's electronic signature.

SECTION V - APPLICATION REVIEW INFORMATION

As described in Section I.D – Project Description (page 7 of this document), all proposed projects submitted under this FOA must address all three technical areas. **PRE-APPLICATIONS AND APPLICATIONS THAT DO NOT ADDRESS ALL THREE TECHNICAL AREAS WILL NOT BE REVIEWED.**

A. Criteria

1. Merit Review Criteria

For the Pre-application, applicants will be required to identify the project scale (industrial/commercial or rural/distributed scale) and whether the proposed project is a research and development, demonstration, or commercial project. Applications will be evaluated against the merit review criteria shown below. Pre-Applications will be assigned a numeric score for each criterion, and a total score for each Pre-Application will be calculated based on the weighting factors shown below.

Criterion 1: Technical Relevance and Merit Weight: 35 percent

Extent to which the proposed project addresses the following:

- Relevance and alignment of the project objectives to the Technical Area goals;
- Effective integration of the three technical areas for biofuels and/or bioenergy and/or biobased products;
- Identification of key barriers and risks to project success;
- Novelty, innovation, uniqueness, and originality of the project objectives;
- Technical value of the proposed research, development, or demonstration; and
- Demonstrates, complements, or advances the current state-of-the-art in each Technical Area.

Criterion 2: Technical Approach/Work Plan Weight: 25 percent

Extent to which the pre-application addresses the following:

- Clarity, reasonableness, and feasibility of the technical approach to achieve project goals;
- Adequacy and thoroughness of plans and approaches to overcome the identified barriers and risks;
- Viability, adequacy, and relevance of the proposed task structure, milestones, schedule, and performance measures and deliverables;
- Likelihood that the project will achieve near-term (4 years or less) commercialization of the proposed product or technology;
- Adequacy and viability of the tools and management capabilities to mitigate project uncertainty and risks; and
- Status of environmental permitting.

Criterion 3: Energy Efficiency/Displacement, Rural Economic Development, Environmental Benefits Weight: 25 percent

Extent to which the proposed project addresses the following:

- Energy efficiency or petroleum displacement benefits compared to existing technology(ies) or system(s) (should be quantified in generally accepted units such as emission reductions in tons of CO₂ released/day, or millions of gallons of conventional diesel fuel displaced per year, etc);

- Cost of the proposed technology compared to existing best commercial technology;
- Compatibility of the proposed technology or product with existing infrastructure and end use applications, e.g., would end users or transporters/distributors have to make significant investments?
- Protection of the environment, and the reduction of imported energy supplies;
- Promotion of enterprise and community self-sufficiency, rural economic development, job creation;
- Impacts and benefits to public safety, the environment, and land sustainability in rural areas. In particular, collection of data that can be used to gauge improvements in key sustainability areas, specifically soil quality, water use, generation/reduction of hazardous/toxic substances, air emissions; wastewater discharges; reductions in use of pesticides, herbicides and fertilizer, etc.;
- Credibility and adequacy of the life-cycle economic and environmental analyses; and
- Demonstration of biobased products to evaluate functional and environmental performance and to facilitate amending or developing industry standards and specifications.

Criterion 4: Technical, Management, and Facility Capabilities Weight: 15 percent

Extent to which the pre-application addresses the following:

- Credentials, capabilities, experience (technical and managerial), availability and performance record of key personnel;
- Type, quality, availability, and appropriateness of facilities, equipment, and supplies;
- Definition of roles and responsibilities of key personnel; and
- Extent to which beneficial collaboration across industry and academia is demonstrated.

Applicants are encouraged to read and understand the intent of each criterion before preparing their pre-application. It is the applicant’s responsibility to address each criterion as fully as possible within the 5 page limit of the pre-application project narrative.

B. Pre-Application Review and Selection Process

As the first step in the review process, DOE and USDA-NIFA will determine whether: (1) the applicant is eligible for an award; (2) the content required by the announcement has been submitted completely and in the correct format; (3) all mandatory administrative requirements are satisfied; and (4) the proposed project is responsive to the Funding Opportunity Announcement (FOA).

Pre-applications that pass the initial review process will undergo a technical merit review in accordance with the guidance provided in the “Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals.” This guide may be found at <http://www.management.energy.gov/documents/meritrev.pdf>. The technical merit review is a scientific peer review process that will be administered by DOE. All pre-applications that undergo the technical merit review will be evaluated based on the criteria listed in Section A, above.

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 pre-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 a pre-application or an application. Non-Federal personnel conducting administrative activities must also sign a non-disclosure agreement.

As a result of this pre-application technical merit review, each applicant will either be requested to submit a full application package or be removed from consideration for funding under this announcement. In either case, a letter of explanation will be provided to the applicant.

PLEASE NOTE: In accordance with guidelines provided by the BRDI Board, established in section 9008(c) of FSRIA (7 USC 8108 (c), as amended, for full applications, DOE and USDA-NIFA will conduct independent program policy factor reviews to rank applications after the peer review panel has selected proposals for funding (see Appendix C “Other Selection Factors” for more information).

C. Anticipated Notice of Selection to Submit Full Application

Date: September 9, 2010

SECTION VI - AWARD ADMINISTRATION INFORMATION

Following the pre-application review process, DOE and USDA-NIFA will invite a select number of applicants to submit full applications based on the peer review. Information on the full application content, the submission process, and the scientific peer review panel review and selection process will be provided with the invitation. Based on scientific peer review of the full applications, DOE and USDA-NIFA will select projects for award. Information in this Section pertains to those projects that, after competition of full applications, have been selected for award.

A. Award Notices

1. Notice of Selection

Selected Applicants Notification

DOE and USDA-NIFA will notify applicants selected for negotiation of award. This notice of selection is not an authorization to begin performance. (See Section IV.B.2.g with respect to the allowability of pre-award costs.)

Non-selected Notification

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

2. Notice of Award

Notice of Award – DOE

A Financial Assistance Award or Assistance Agreement issued by the DOE Contracting Officer is the authorizing award document. DOE's agreement normally includes, either as an attachment or by reference: (1) Special Terms and Conditions; (2) Applicable program regulations, if any; (3) Application as approved by DOE; (4) DOE assistance regulations at 10 CFR part 600; (5) National Policy Assurances To Be Incorporated As Award Terms; (6) Budget Summary; and (7) Federal Assistance Reporting Checklist, which identifies the reporting requirements.

For grants and cooperative agreements made by DOE to universities, non-profits and other entities subject to OMB Circular A-110, the award also includes the Research Terms and Conditions and the DOE Agency Specific Requirements located at:

<http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp>.

Notice of Award – USDA-NIFA

The award document will provide pertinent instructions and information including, at a minimum, the following:

- (1) Legal name and address of performing organization or institution to whom the Director has issued an award under the terms of this request for applications;
- (2) Title of project;
- (3) Name(s) and institution(s) of Project Directors chosen to direct and control approved

activities;

(4) Identifying award number assigned by the Department;

(5) Project period, specifying the amount of time the Department intends to support the project without requiring recompetition for funds;

(6) Total amount of Departmental financial assistance approved by the Director during the project period;

(7) Legal authority(ies) under which the award is issued;

(8) Appropriate Catalog of Federal Domestic Assistance (CFDA) number;

(9) Applicable award terms and conditions (see <http://www.nifa.usda.gov/business/awards/awardterms.html> to view USDA-NIFA award terms and conditions);

(10) Approved budget plan for categorizing allocable project funds to accomplish the stated purpose of the award; and

(11) Other information or provisions deemed necessary by USDA-NIFA to carry out its respective awarding activities or to accomplish the purpose of a particular award.

B. Administrative and National Policy Requirements

1. Administrative Requirements.

The administrative requirements and national policy requirements (e.g., “generally applicable requirements”) for Federal agency grants and cooperative agreements are governed by the awarding agency’s regulations.

For DOE – 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.bfa/dias/policy/rtc/index.jsp>.

For DOE - 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

<http://www.management.energy.gov/documents/specialtermsandcondition308.pdf>.

The National Policy Assurances To Be Incorporated As Award Terms are located at

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

http://management.energy.gov/business_doe/1374.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.

For USDA-NIFA - The regulations at 7 CFR Part 3430 apply – USDA-NIFA Competitive and Noncompetitive Nonformula Federal Assistance Programs - General Award Administrative Provisions. However, other regulations (listed below) may also be applicable. These include, but are not limited to:

2 CFR Part 220—Cost Principles for Educational Institutions (OMB Circular A-21).

2 CFR Part 225—Cost Principles for State, Local, and Indian Tribal governments (OMB Circular A-87).

2 CFR Part 230 – Cost Principles for Non-profit Organizations (OMB Circular A-122).

7 CFR Part 1, subpart A—USDA implementation of the Freedom of Information Act.

7 CFR Part 3—USDA implementation of OMB Circular No. A-129 regarding debt collection.

7 CFR Part 15, subpart A—USDA implementation of Title VI of the Civil Rights Act of 1964, as amended.

7 CFR Part 331 and 9 CFR Part 121—USDA implementation of the Agricultural Bioterrorism Protection Act of 2002.

7 CFR Part 3015—USDA Uniform Federal Assistance Regulations, implementing OMB directives (i.e., OMB Circular Nos. A-21, A-87, and A-122, now codified at 2 CFR Parts 220, 225, and 230) and incorporating provisions of 31 U.S.C. 6301-6308 (formerly the Federal Grant and Cooperative Agreement Act of 1977, Pub. L. No. 95-224), as well as general policy requirements applicable to recipients of Departmental financial assistance.

7 CFR Part 3016—USDA Implementation of Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

7 CFR Part 3017—USDA implementation of Governmentwide Debarment and Suspension (Nonprocurement) and 7 CFR Part 3021—Governmentwide Requirements for Drug Free Workplace (Grants).

7 CFR Part 3018—USDA implementation of Restrictions on Lobbying. Imposes prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans.

7 CFR 3019—USDA Implementation of OMB Circular A-110, Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals, and other non-Profit Organizations (2 CFR Part 215).

7 CFR Part 3021—Governmentwide Requirements for Drug-Free Workplace (Financial Assistance).

7 CFR Part 3052—USDA implementation of OMB Circular No. A-133, Audits of States, Local Governments, and Non profit Organizations.

7 CFR Part 3407—USDA procedures to implement the National Environmental Policy Act of 1969, as amended.

29 U.S.C. 794 (section 504, Rehabilitation Act of 1973) and 7 CFR Part 15b (USDA implementation of statute) —prohibiting discrimination based upon physical or mental handicap in Federally assisted programs.

35 U.S.C. 200 et seq. —Bayh Dole Act, controlling allocation of rights to inventions made by employees of small business firms and domestic nonprofit organizations, including universities, in Federally assisted programs (implementing regulations are contained in 37 CFR Part 401).

C. Reporting

Reporting requirements for DOE awards 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>.

Reporting requirements for USDA-NIFA awards: Grantees are required to submit initial project information and annual and summary reports to USDA-NIFA's Current Research Information System (CRIS). The CRIS database contains narrative project information, progress/impact statements, and final technical reports that are made available to the public. For applications recommended for funding, instructions on preparation and submission of project documentation will be provided to the applicant by the agency contact. Documentation must be submitted to CRIS before USDA-NIFA funds will be released. Project reports will be requested by the CRIS office when required. For more information about CRIS, visit <http://cris.NIFA.usda.gov>.

SECTION VII - QUESTIONS/AGENCY CONTACTS

A. Questions

Questions regarding the content of the announcement must be submitted through the FedConnect system. You must register with FedConnect to submit questions and to review responses to questions. It is recommended that you register as soon after release of the FOA as possible to have the benefit of all responses. More information is available at https://www.fedconnect.net/Fedconnect/PublicPages/FedConnect_Ready_Set_Go.pdf. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

Questions pertaining to the **submission of applications through Grants.gov** should be directed by e-mail to support@grants.gov or by phone to 1-800-518-4726. The Grants.gov Helpdesk is available 24 hours/day except for [Federal Holidays](#), when they are closed.

Questions regarding program requirements must be directed to:

Jon Olsen, Contracting Officer, DOE
BRDI341@go.doe.gov

OR

Brenda Dias, Grants and Agreements Specialist, DOE
BRDI341@go.doe.gov

SECTION VIII - OTHER INFORMATION

A. Modifications

Notices of any modifications to this announcement will be posted on Grants.gov. When you download the pre-application at Grants.gov, you can register to receive notifications of changes through Grants.gov.

Notices of any modifications to this announcement will also be available in the FedConnect system. 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 the 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 https://www.fedconnect.net/Fedconnect/PublicPages/FedConnect_Ready_Set_Go.pdf

B. Government Right to Reject or Negotiate

DOE and USDA-NIFA reserve 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

For awards made by DOE, 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.

For awards made by USDA-NIFA, the ADO is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the ADO, either explicit or implied, is invalid.

D. Proprietary Application Information

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

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

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

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

E. Evaluation and Administration by Non-Federal Personnel

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

F. Intellectual Property Developed Under this Program

Patent Rights: The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE or USDA-NIFA award. Specific regulations of each agency will be identified in the award documents for each project.

For DOE: 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.) 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.

For USDA-NIFA: 37 CFR Part 401—Rights to Inventions Made by Nonprofit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements and 7 CFR 3019.36 - Intangible Property section of Uniform Administrative Requirements For Grants And Agreements With Institutions Of Higher Education, Hospitals, And Other Nonprofit Organizations (which pertains to copyrights, patents, and inventions) provide guidance under this section. These regulations apply to all USDA-NIFA recipients (excluding Federal agencies and National Laboratories). For more information, please refer to the following links:
<http://www.NIFA.usda.gov/business/awards/intellprop.html>
http://www.NIFA.usda.gov/business/pdfs/patents_copyrights.pdf

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

Special Protected Data Statutes. For DOE, this program is covered by a special protected data statute. The provisions of the statute provide for the protection from public disclosure, for a period of up to 5 years from the date of its development, of first-produced data that would be trade secret, or commercial or financial information that is privileged or confidential, if the information had been obtained from a non-Federal party. Generally, the provision entitled, Rights in Data – Programs Covered Under Special Protected Data Statutes, (10 CFR 600 Appendix A to Subpart D), will apply to an award made under this announcement. This provision will identify data or categories of data first produced in the performance of the award that will be made available to the public, notwithstanding the statutory authority to withhold data from public dissemination, and may also identify data that will be recognized by the parties as protected data. For National Laboratories and FFRDCs, the data rights clause in Applicant’s Management and Operating (M&O) Contract will apply.

G. Notice of Right to Request Patent Waiver

For DOE, applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this announcement, in advance of or within 30 days after the effective date of the award. Even if such advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784. . See http://gc.doe.gov/documents/gc62_advance.pdf and <http://www.gc.doe.gov/documents/patwaiyclau.pdf>.

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

H. Notice Regarding Eligible/Ineligible Activities

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

I. Notice of Right to Conduct a Review of Financial Capability

DOE and USDA-NIFA reserve the right to conduct an independent third party review of financial capability for applicants that are selected for negotiation of award (including personal credit information of principal(s) of a small business if there is insufficient information to determine financial capability of the organization).

J. Notice of Potential Disclosure Under Freedom of Information Act

DOE and USDA-NIFA applicants should be advised that identifying information regarding all applicants, including applicant names and/or points of contact, may be subject to public disclosure under the Freedom of Information Act, whether or not such applicants are selected for negotiation of award.

REFERENCE MATERIAL

Appendix A – Definitions

“Authorized Departmental Officer or ADO” means the Secretary of Agriculture or any employee of the Department with delegated authority to issue or modify award instruments on behalf of the Secretary.

“Advanced Biofuel” means fuel derived from renewable biomass other than corn kernel starch, including:

- (i) biofuel derived from cellulose, hemicellulose, or lignin;
- (ii) biofuel derived from sugar and starch (other than ethanol derived from corn kernel starch);
- (iii) biofuel derived from waste material, including crop residue, other vegetative waste material, animal waste, food waste, and yard waste;
- (iv) diesel-equivalent fuel derived from renewable biomass, including vegetable oil and animal fat;
- (v) biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass;
- (vi) butanol or other alcohols produced through the conversion of organic matter from renewable biomass; and
- (vii) other fuel derived from cellulosic biomass.

"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 Funding Opportunity Announcement.

"Application" means the documentation submitted in response to a Funding Opportunity Announcement.

“Authorized Organization Representative (AOR)” is the person with assigned privileges who is authorized to submit grant applications through Grants.gov on behalf of an organization. The privileges are assigned by the organization’s E-Business Point of Contact designated in the CCR.

"Award" means the written documentation executed by a DOE Contracting Officer or USDA ADO, after an Applicant is selected, which contains the negotiated terms and conditions for providing Financial Assistance to the Applicant. A Financial Assistance Award may be either a Grant or a Cooperative Agreement.

“Biofuel” means a fuel derived from renewable biomass.

“Biobased Product” means

- (A) an industrial product (including chemicals, materials, and polymers) produced from biomass; or
- (B) a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel.

“Bioenergy” means power generated in the form of electricity or heat using biomass as a feedstock.

“Biomass Conversion Facility” means a facility that converts or proposes to convert renewable biomass into:

- (A) heat;
- (B) power;
- (C) biobased products; or
- (D) advanced biofuels.

“Biorefinery” means a facility (including equipment and processes) that:

- (A) converts renewable biomass into biofuels and biobased products; and
- (B) may produce electricity.

"Budget" means the cost expenditure plan submitted in the Application, including both the Federal contribution and the Applicant Cost Share.

“Cellulosic Biofuel” means renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator [EPA], that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

“Central Contractor Registration (CCR)” is the primary database which collects, validates, stores and disseminates data in support of agency missions. Funding Opportunity Announcements which require application submission through FedConnect or Grants.gov require that the organization first be registered in the CCR at <http://www.grants.gov/CCRRegister>.

“Commercial” Any activity which involves the buying or selling of goods and/or services.

"Consortium (plural consortia)" means the group of organizations or individuals that have chosen to submit a single Application in response to a Funding Opportunity Announcement.

"Contracting Officer" means the Federal official authorized to execute Awards on behalf of DOE and who is responsible for the business management and non-program aspects of the Financial Assistance process.

"Cooperative Agreement" means a Financial Assistance instrument used by DOE/USDA to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute, and Substantial Involvement (see definition below) is anticipated between DOE/USDA and the Applicant during the performance of the contemplated activity.

"Cost Sharing" means the respective share of Total Project Costs to be contributed by the Applicant and by the Federal Government. The percentage of Applicant Cost Share is to be applied to the Total Project Cost (i.e., the sum of Applicant plus Federal Cost Shares) rather than to the Federal contribution alone.

“Credential Provider” is an organization that validates the electronic identity of an individual through electronic credentials, PINS, and passwords for Grants.gov and FedConnect. Funding Opportunity Announcements which require application submission through Grants.gov require that the individual applying on behalf of an organization first be registered with the Credential Provider at <https://apply.grants.gov/OrcRegister>.

“Data Universal Numbering System (DUNS) Number” is a unique nine-character identification number issued by Dun and Bradstreet (D&B). Organizations must have a DUNS number prior to registering in the CCR. Call 1-866-705-5711 to receive one free of charge. http://www.grants.gov/applicants/request_duns_number.jsp

"Demonstration" means demonstration of technology in a pilot plant or semi-works scale facility, including a plant or facility located on a farm.

“E-Business Point of Contact (POC)” is the individual who is designated as the Electronic Business Point of Contact in the CCR registration. This person is the sole authority of the organization with the capability of designating or revoking an individual’s ability to conduct CCR transactions.

“E-Find” is a Grants.gov webpage where you can search for Federal Funding Opportunities in FedGrants. <http://www.grants.gov/search/searchHome.do>

"Financial Assistance" means the transfer of money or property to an Applicant or Participant to accomplish a public purpose of support authorized by Federal statute through Grants or Cooperative Agreements and sub-awards. Financial Assistance does not include direct loans, loan guarantees, price guarantees, purchase agreements, Cooperative Research and Development Agreements (CRADAs), or any other type of financial incentive instrument.

“FedConnect” is where federal agencies post opportunities and make awards via the web. Any Applicant can view public postings without registering. However, registered users have numerous added benefits including the ability to electronically submit Applications / Responses to the government directly through this site. <https://www.fedconnect.net/FedConnect/>

“Federally Funded Research and Development Center (FFRDC)” means a research laboratory as defined by Federal Acquisition Regulation 35.017.

“Funding Opportunity Announcement (FOA)” is a publicly available document by which a Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements, notices of funding availability, solicitations, or other names depending on the agency and type of program.

"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 or stimulation authorized by Federal statute, and no Substantial Involvement is anticipated between DOE and the Applicant during the performance of the contemplated activity.

“Grants.gov” is the “storefront” web portal which allows organizations to electronically find grant opportunities from all Federal grant-making agencies. Grants.gov is THE single access point for over 900 grant programs offered by the 26 Federal grant-making agencies.

<http://www.grants.gov>

“Indian Tribe” means any Indian tribe, band, nation, or other organized group or community, including Alaska Native village or regional or village corporation, as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688)[43 U.S.C. § 1601 et seq.], which are recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

“Integration of technical areas” means a continuum or linking of activities or objectives that are within the scope of feedstocks development, biofuels and biobased products development, and biofuels development analysis as defined in the Project Description section of this document.

“Intermediate Ingredient or Feedstock” means a material or compound made in whole or in significant part from biological products, including renewable agricultural materials (including plant, animal, and marine materials) or forestry materials, that are subsequently used to make a more complex compound or product.

"Key Personnel" mean the individuals who will have significant roles in planning and implementing the proposed Project on the part of the Applicant and Participants, including FFRDCs.

“Marketing Partner Identification Number (MPIN)” is a very important password designated by your organization when registering in CCR. The E-Business Point of Contact will need the MPIN to assign privileges to the individual(s) authorized to perform CCR transactions on behalf of your organization. The MPIN must have 9 digits containing at least one alpha character (must be in capital letters) and one number (no spaces or special characters permitted).

“Modification” means a revision to a Funding Opportunity Announcement.

"Participant" for purposes of this Funding Opportunity Announcement only, means any entity, except the Applicant substantially involved in a Consortium, or other business arrangement (including all parties to the Application at any tier), responding to the Funding Opportunity Announcement.

“Principal Investigator” refers to the technical point of contact/Project Manager for a specific project award.

"Project" means the set of activities described in an Application, State plan, or other document that is approved by DOE/USDA for Financial Assistance (whether such Financial Assistance represents all or only a portion of the support necessary to carry out those activities).

“Proposal” is the term used to describe the documentation submitted in response to a Funding Opportunity Announcement. Also see Application.

“Recipient” means the organization, individual, or other entity that receives a Financial Assistance Award from DOE/USDA, is financially accountable for the use of any DOE/USDA funds or property provided for the performance of the Project, and is legally responsible for carrying out the terms and condition of the award.

“Renewable Biomass” means (A) materials, pre-commercial thinnings, or invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)) that:

- (i) are byproducts of preventive treatments that are removed—
 - (I) to reduce hazardous fuels;
 - (II) to reduce or contain disease or insect infestation; or
 - (III) to restore ecosystem health;
 - (ii) would not otherwise be used for higher-value products; and
 - (iii) are harvested in accordance with—
 - (I) applicable law and land management plans; and
 - (II) the requirements for H. R. 2419—383
 - (aa) old-growth maintenance, restoration, and management direction of paragraphs (2), (3), and (4) of subsection (e) of section 102 of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6512); and
 - (bb) large-tree retention of subsection (f) of that section; or
- (B) any organic matter that is available on a renewable or recurring basis from non-Federal land or land belonging to an Indian or Indian tribe that is held in trust by the United States or subject to a restriction against alienation imposed by the United States, including:
- (i) renewable plant material, including:
 - (I) feed grains;
 - (II) other agricultural commodities;
 - (III) other plants and trees;
 - (IV) algae; and
 - (ii) waste material, including—
 - (I) crop residue;
 - (II) other vegetative waste material (including wood waste and wood residues);
 - (III) animal waste and byproducts (including fats, oils, greases, and manure); and
 - (IV) food waste and yard waste.

“Request for Application (RFA)” is a document by which a Federal agency makes known its intentions to award discretionary grants or cooperative agreements. RFAs, Funding Opportunity Announcements (FOAs), Program Announcements (PAs), or other solicitation instruments used with similar intent are developed in accordance with the Office of Management and Budget (OMB) policy directive, 68 FR 37370–37379 (June 23, 2003), which establishes a standard format for Federal agency announcements (i.e. , program solicitations or RFAs) of funding opportunities under programs that award discretionary grants or cooperative agreements.

“Research” means any systematic study directed toward new or fuller knowledge and understanding of the subject studied.

“Research and Development (R&D)” means any activity which is: a systematic study directed at applying new knowledge to meet a recognized need; or a systematic application of knowledge

toward the production of useful materials, devices and systems or methods, including design, development and improvement of prototypes, and new processes to meet specific requirements.

“**Rural**” means any area other than; (1) a city or town that has a population of greater than 50,000 inhabitants, or (2) the urbanized areas contiguous and adjacent to such a city or town.

"**Selection**" means the determination by the DOE and USDA Selection Officials that negotiations take place for certain Projects with the intent of awarding a Financial Assistance instrument.

"**Selection Official**" means the DOE/USDA official designated to select Applications for negotiation toward Award under a subject Funding Opportunity Announcement.

“**Sustainability**” means an integrated system of plant and animal production practices having a site-specific application that will over the long term: satisfy human food and fiber needs; enhance environmental quality and the natural resource base upon which the agricultural economy depends; make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; sustain the economic viability of farm operations; enhance the quality of life for farmers and society as a whole.

"**Substantial Involvement**" means involvement on the part of the Government. DOE/USDA's involvement may include shared responsibility for the performance of the Project; providing technical assistance or guidance which the Applicant is to follow; and the right to intervene in the conduct or performance of the Project. Such involvement will be negotiated with each Applicant prior to signing any agreement.

"**Total Project Cost**" means all the funds to complete the effort proposed by the Applicant, including BRDI funds (including direct funding of any FFRDC) plus all other funds that will be committed by the Applicant as Cost Sharing.

“**Tribal Energy Resource Development Organization or Group**” means an “organization” of two or more entities, at least one of which is an Indian Tribe (see “Indian Tribe” above) that has the written consent of the governing bodies of all Indian Tribes participating in the organization to apply for a grant or loan, or other assistance under 25 U.S.C. § 3503.

“**Transportation fuel**” means fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except for ocean-going vessels).

Appendix B – Personally Identifiable Information

In responding to this Announcement, Applicants must ensure that Protected Personally Identifiable Information (PII) is not included in the following documents: Project Abstract, Project Narrative, Biographical Sketches, Budget or Budget Justification. These documents will be used by the Merit Review Committee in the review process to evaluate each application. PII is defined by the Office of Management and Budget (OMB) and DOE/USDA as:

Any information about an individual maintained by an agency, including but not limited to, education, financial transactions, medical history, and criminal or employment history and information that can be used to distinguish or trace an individual's identity, such as their name, social security number, date and place of birth, mother's maiden name, biometric records, etc., including any other personal information that is linked or linkable to an individual.

This definition of PII can be further defined as: (1) Public PII and (2) Protected PII.

- a. **Public PII:** PII found in public sources such as telephone books, public websites, business cards, university listing, etc. Public PII includes first and last name, address, work telephone number, email address, home telephone number, and general education credentials.
- b. **Protected PII:** PII that requires enhanced protection. This information includes data that if compromised could cause harm to an individual such as identity theft.

Listed below are examples of Protected PII that Applicants must not include in the files listed above to be evaluated by the Merit Review Committee.

- Social Security Numbers in any form
- Place of Birth associated with an individual
- Date of Birth associated with an individual
- Mother's maiden name associated with an individual
- Biometric record associated with an individual
- Fingerprint
- Iris scan
- DNA
- Medical history information associated with an individual
- Medical conditions, including history of disease
- Metric information, e.g. weight, height, blood pressure
- Criminal history associated with an individual
- Employment history and other employment information associated with an individual
- Ratings
- Disciplinary actions
- Performance elements and standards (or work expectations) are PII when they are so intertwined with performance appraisals that their disclosure would reveal an individual's performance appraisal
- Financial information associated with an individual

- Credit card numbers
- Bank account numbers
- Security clearance history or related information (not including actual clearances held)

Listed below are examples of Public PII that Applicants may include in the files listed above to be evaluated by the Merit Review Committee:

- Phone numbers (work, home, cell)
- Street addresses (work and personal)
- Email addresses (work and personal)
- Digital pictures
- Medical information included in a health or safety report
- Employment information that is not PII even when associated with a name
- Resumes, unless they include a Social Security Number
- Present and past position titles and occupational series
- Present and past grades
- Present and past annual salary rates (including performance awards or bonuses, incentive awards, merit pay amount, Meritorious or Distinguished Executive Ranks, and allowances and differentials)
- Present and past duty stations and organization of assignment (includes room and phone numbers, organization designations, work email address, or other identifying information regarding buildings, room numbers, or places of employment)
- Position descriptions, identification of job elements, and those performance standards (but not actual performance appraisals) that the release of which would not interfere with law enforcement programs or severely inhibit agency effectiveness
- Security clearances held
- Written biographies (e.g. to be used in a program describing a speaker)
- Academic credentials
- Schools attended
- Major or area of study
- Personal information stored by individuals about themselves on their assigned workstation or laptop unless it contains a Social Security Number

Appendix C – Minimum Requirements for Full Applications & Selection of Awardees for FY 2010 BRDI

The solicitation for full applications, when it is made available via Grants.gov, will contain all of the following information, as well as detailed instructions for applicants on completing and submitting the required forms. However, in the interest of disclosing as much helpful information as possible to those considering submitting pre-applications to the Biomass Research and Development Initiative, we are making a few key sections of the solicitation for full applications available at this time. These are:

- **Content and Form of Application Submission**
- **Full Application Review Requirements**
- **General Award Administration Information**
- **Use of Funds; Changes**

Content and Form of Application Submission

For USDA-NIFA, this program will be listed in the Catalog of Federal Domestic Assistance (CFDA) under 10.312. When it is made available on Grants.gov, the solicitation for full applications will be associated with this CFDA number. Only electronic applications may be submitted via Grants.gov to USDA-NIFA in response to this RFA. When the solicitation for full applications is made available, invited applicants will be able to download and submit the following required forms via Grants.gov:

- **SF 424 R&R Cover Sheet**
- **R&R Other Project Information Form**
- **R&R Senior/Key Person Profile (Expanded)**
- **Project/Performance Site Location**
- **R&R Personal Data (Optional)**
- **R&R Fed/Non-Fed Budget**
- **USDA-NIFA Supplemental Information Form**

Project Narrative Requirements

The Project Narrative portion of the full application must not exceed 25 pages, including cover page, 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). The font must not be smaller than 11 point. Do not include any internet addresses (URLs) that provide information necessary to review the application. The Project Narrative must: 1) clearly identify the biomass to biofuels/bioenergy/bio-based products value chain elements and the scale addressed by the proposed work; 2) include a clear, concise statement of the specific objectives/aims of the proposed work; and 3) address each of the evaluation criterion and sub-criterion listed below.

Full Application Review Requirements

Each full application will be evaluated in a 2-part process. First, each full application will be screened to ensure that it meets the administrative requirements as set forth in this Request for Applications (RFA). Second, full applications that meet these requirements will be technically evaluated by a review panel.

Reviewers will be selected based upon training and experience in relevant scientific, extension, or education fields, taking into account the following factors: (a) The level of relevant formal

scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities; (b) the need to include as reviewers experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include as reviewers other experts (e.g., producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs; (d) the need to include as reviewers experts from a variety of organizational types (e.g., colleges, universities, industry, state and Federal agencies, private profit and non-profit organizations) and geographic locations; (e) the need to maintain a balanced composition of reviewers with regard to minority and female representation and an equitable age distribution; and (f) the need to include reviewers who can judge the effective usefulness to producers and the general public of each application.

Evaluation or Merit Review Criteria

Applicants will be required to identify whether they are proposing Research, Development, Demonstration, or Commercial projects. The following criteria will be used to evaluate full applications. Weight percentages for each area are as follows:

Criterion 1: Technical Relevance and Merit

Weight: 35 percent

Extent or degree to which the proposed project addresses the following:

- Relevance and alignment of the project objectives to the Technical Area goals;
- Effective integration of the three Technical Areas for biofuels and/or bioenergy and/or biobased products;
- Identification of key barriers and risks to project success;
- Novelty, innovation, uniqueness, and originality of the project objectives;
- Technical value of the proposed research, development, or demonstration; and
- Demonstrates, compliments, or advances the current state-of-the-art in each Technical Area.

Criterion 2: Technical Approach/Work Plan

Weight: 25 percent

Extent to which the application addresses the following:

- Clarity, reasonableness, and feasibility of the technical approach to achieve project goals;
- Adequacy and thoroughness of plans and approaches to overcome the identified barriers and risks;
- Viability, adequacy, and relevance of the proposed task structure, milestones, schedule, and performance measures and deliverables;
- Likelihood that the project will achieve near-term (4 years or less) commercialization of the proposed product or technology;
- Adequacy and viability of the tools and management capabilities to mitigate project uncertainty and risks; and
- Status of environmental permitting.

Criterion 3: Energy Efficiency/Displacement, Rural Economic Development, and Environmental Benefits

Weight: 25 percent

Extent to which the proposed project addresses the following:

- Energy efficiency or petroleum displacement benefits compared to existing technology(ies) or system(s) (should be quantified in generally accepted units such as emission reductions in

tons of CO₂ released/day, or millions of gallons of conventional diesel fuel displaced per year, etc);

- Cost of the proposed technology compared to existing best commercial technology;
- Compatibility of the proposed technology or product with existing infrastructure and end use applications, e.g., would end users or transporters/distributors have to make significant investments?;
- Protection of the environment, and the reduction of imported energy supplies;
- Promotion of enterprise and community self-sufficiency, rural economic development, job creation;
- Impacts and benefits to public safety, the environment, and land sustainability in rural areas. In particular, collection of data that can be used to gauge improvements in key sustainability areas, specifically soil quality, water use, generation/reduction of hazardous/toxic substances, air emissions; wastewater discharges; reductions in use of pesticides, herbicides and fertilizer; etc.;
- Credibility and adequacy of the life-cycle economic and environmental analyses; and
- Demonstration of biobased products to evaluate functional and environmental performance and to facilitate amending or developing industry standards and specifications.

Criterion 4: Technical, Management, and Facility Capabilities **Weight: 15 percent**

Extent to which the application addresses the following:

- Credentials, capabilities, experience (technical and managerial), availability and performance record of key personnel;
- Type, quality, availability, and appropriateness of facilities, equipment, and supplies;
- Definition of roles and responsibilities of key personnel; and
- Extent to which beneficial collaboration across industry and academia is demonstrated.

Special Considerations

For all full applications, section 9008(e)(6)(A)(iii) of FSRIA, as amended (7 U.S.C. 8108 (e)(6)(A)(iii)), identifies the following technical “Special Considerations” to be used when ranking applications, i.e., special consideration will be given to applications that:

- Involve a consortia of experts from multiple institutions;
- Encourage the integration of disciplines and application of the best technical resources; and
- Increase the geographic diversity of demonstration projects.

Other Selection Factors

In accordance with guidelines provided by the BRDI Board, established in section 9008(c) of FSRIA, as amended (7 U.S.C. 8108 (c)), for full applications, DOE and USDA-NIFA will conduct independent program policy factor reviews. DOE’s program policy factor review will be conducted by DOE Headquarters (HQ) for consideration by the DOE Selection Official. For applications selected for award by DOE, additional program policy factors will include:

- Balance of the overall portfolio of DOE investments in biomass research and development and relevance to the specific DOE barriers and pathways as outlined in the Program Multi-year Program Plan:
(http://www1.eere.energy.gov/biomass/pdfs/biomass_program_mypp.pdf)
- Cost share above the minimum required.

For applications selected for award by USDA-NIFA, additional program policy factors will

include:

- Diversity of funded feedstocks and conversion technologies;
- Geographic diversity of research and development projects, as well as demonstration projects;
- Balance among the life cycle components; and
- Balanced portfolio of projects that contribute to the objectives of section 9008(e)(2) of FSRIA, as amended, (7 U.S.C. 8018(e)(2)).

General Award Administration Requirements

Within the limit of funds available for such purpose, the awarding official of USDA-NIFA shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. The date specified by the awarding official of USDA-NIFA as of the effective date of the grant shall be no later than September 30 of the Federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. It should be noted that the project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by USDA-NIFA under this RFA shall be expended solely for the purpose for which the funds are granted in accordance with the approved application and budget, the regulations, the terms and conditions of the award, the applicable Federal cost principles, and the Department's assistance regulations. Awards made under this solicitation will be made in FY 2011.

To view Standard Award Terms and Conditions USDA-NIFA intends to utilize for Biomass Research and Development Awards issued in FY 2010: see <http://www.NIFA.usda.gov/business/awards/awardterms.html>.

Use of Funds; Changes

1. Delegation of Fiscal Responsibility

Unless the terms and conditions of the award state otherwise, the awardee may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of award funds.

2. Changes in Project Plans

a. The permissible changes by the awardee, PD(s), or other key project personnel in the approved project shall be limited to changes in methodology, techniques, or other similar aspects of the project to expedite achievement of the project's approved goals. If the awardee or the PD(s) is uncertain as to whether a change complies with this provision, the question must be referred to the Authorized Departmental Officer (ADO) for a final determination. The ADO is the signatory of the award document, not the program contact.

b. Changes in approved goals or objectives shall be requested by the awardee and approved in writing by the ADO prior to effecting such changes. In no event shall requests for such changes be approved which are outside the scope of the original approved project.

c. Changes in approved project leadership or the replacement or reassignment of other key project personnel shall be requested by the awardee and approved in writing by the ADO prior to effecting such changes.

d. Transfers of actual performance of the substantive programmatic work in whole or in part and provisions for payment of funds, whether or not Federal funds are involved, shall be requested

by the awardee and approved in writing by the ADO prior to effecting such transfers, unless prescribed otherwise in the terms and conditions of the award.

e. The project period may be extended by USDA-NIFA without additional financial support, for such additional period(s) as the ADO determines may be necessary to complete or fulfill the purposes of an approved project, but in no case shall the total project period exceed five years. Any extension of time shall be conditioned upon prior request by the awardee and approval in writing by the ADO, unless prescribed otherwise in the terms and conditions of award.

f. Changes in Approved Budget: Unless stated otherwise in the terms and conditions of award, changes in an approved budget must be requested by the awardee and approved in writing by the ADO prior to instituting such changes if the revision will involve transfers or expenditures of amounts requiring prior approval as set forth in the applicable Federal cost principles, Departmental regulations, or award.