

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



**U.S. Department of Energy
Golden Field Office**

20% Wind by 2030: Overcoming the Challenges

Funding Opportunity Announcement Number: DE-PS36-09GO99009

Announcement Type: Modification 004

CFDA Number: 81.087

Issue Date: 12/30/2008

Application Due Date: 03/03/2009, 11:59 PM Eastern Time



Department of Energy
 Golden Field Office
 1617 Cole Boulevard
 Golden, Colorado 80401-3393

DE-PS36-09G099009

Modification No. 004

DATE: February 5, 2009
 FROM: Sara Wilson, Contracting Officer
 TO: All Prospective Applicants

SUBJECT: Modification No. 004 to Announcement DE-PS36-09G099009,
 "20% Wind by 2030: Overcoming the Challenges"

The Announcement is amended as follows:

1. The Topic Area Summary table at the end of Part I – FUNDING OPPORTUNITY DESCRIPTION is deleted and replaced with the following to increase the Estimated Range per Award (DOE Share) for each Topic Area:

Topic Area Summary

Topic Area	Total Estimated Federal Funding*	Estimated FY09 Federal Funding	Award Type	Expected Number of Awards	Required Cost Share	Estimated Range per Award (DOE Share)	Period of Performance
1 - Supporting Wind Turbine Research and Testing	\$1.5 million	\$0.75 million	Grants	3 to 5	20%	\$200,000 - 750,000	1 - 2 years
2 - Market Acceptance	\$1.0 million	\$0.5 million	Grants	6 to 10	0%	\$50,000 to \$750,000 (see topic area description below)	1 - 2 years
3 - Environmental Impact	\$1.0 million	\$0.5 million	Grants	4 to 8	0%	\$50,000 - 300,000	1 - 2 years
4 - Transmission Analysis, Planning and Assessments	\$3.0 million	\$1.5 million	Grants	2 to 6	0%	\$200,000 - 750,000	1 - 2 years

5 - Workforce Development	\$1.0 million	\$0.5 million	Grants	2 to 5	0%	\$100,000 - 400,000	1 - 2 years
6 - Distributed Wind Technology	\$0.5 million	\$0.25 million	Grants	1 to 5	20%	\$100,000 - 250,000	1 - 2 years

*** Federal funding is subject to annual appropriations – all figures above should be treated as estimates. Furthermore, in anticipation of possible increased Fiscal Year 2009 funding appropriated under potential Congressional actions such as *The American Recovery and Reinvestment Act of 2009*, the total expected number of awards may increase.**

2. In Part II – TOPIC AREA DETAILS, for each of the six Funding Opportunity Announcement Topics, under AWARD INFORMATION, Section D (Maximum and Minimum Award Size), and Section F (Anticipated Award Size) are revised as follows:
 - a. *Topic Area 1: Supporting Wind Turbine Research and Testing*

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 1):
\$ 750,000
Floor (i.e., the minimum amount for an individual award made under Topic Area 1):
\$ 200,000

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 200,000 – \$ 750,000 range for the total project period.

- b. *Topic Area 2: Market Acceptance*

D. MAXIMUM AND MINIMUM AWARD SIZE

Topic Area 2A:
Ceiling (i.e., the maximum amount for an individual award made under this announcement):
\$ 100,000
Floor (i.e., the minimum amount for an individual award made under this announcement):
\$ 50,000

Topic Area 2B:
Ceiling (i.e., the maximum amount for an individual award made under this announcement):
\$ 200,000
Floor (i.e., the minimum amount for an individual award made under this announcement):
\$ 100,000

Topic Area 2C:
Ceiling (i.e., the maximum amount for an individual award made under this announcement):
\$ 750,000
Floor (i.e., the minimum amount for an individual award made under this announcement):
\$ 250,000

F. ANTICIPATED AWARD SIZE

Topic Area 2A:
DOE anticipates that awards will be in the \$ 50,000 – \$ 100,000 range for the total project period.

Topic Area 2B:

DOE anticipates that awards will be in the \$ 100,000 – \$ 200,000 range for the total project period.

Topic Area 2C:

DOE anticipates that awards will be in the \$ 250,000 – \$ 750,000 range for the total project period.

c. Topic Area 3: Environmental Impact

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 3):
\$ 300,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 3):
\$ 50,000

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 50,000 – \$ 300,000 range for the total project period.

d. Topic Area 4: Transmission Analysis, Planning and Assessments

D. MAXIMUM AND MINIMUM AWARD SIZE

Topic Area 4A:

Ceiling (i.e., the maximum amount for an individual award made under this announcement):
\$ 750,000

Floor (i.e., the minimum amount for an individual award made under this announcement):
\$ 200,000

Topic Area 4B:

Ceiling (i.e., the maximum amount for an individual award made under this announcement):
\$ 750,000

Floor (i.e., the minimum amount for an individual award made under this announcement):
\$ 200,000

F. ANTICIPATED AWARD SIZE

Topic Area 4A:

DOE anticipates that awards will be in the \$ 200,000 – \$ 750,000 range for the total project period.

Topic Area 4B:

DOE anticipates that awards will be in the \$ 200,000 – \$ 750,000 range for the total project period.

e. Topic Area 5: Workforce Development

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 5):
\$ 400,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 5):
\$ 100,000

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 100,000 – \$ 400,000 range for the total project period.

f. *Topic Area 6: Distributed Wind Technology*

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 6):
\$ 250,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 6):
\$ 100,000

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 100,000 – \$ 250,000 range for the total project period.

All other terms and conditions remain unchanged.



Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

DE-PS36-09G099009
Modification No. 003

DATE: January 23, 2009
FROM: Sara Wilson, Contracting Officer
TO: All Prospective Applicants

SUBJECT: Modification No. 003 to Announcement DE-PS36-09G099009,
"20% Wind by 2030: Overcoming the Challenges"

The Announcement is amended as follows:

1. In Part 1 – FUNDING OPPORTUNITY DESCRIPTION, the asterisked statement beneath the Topic Area Summary table regarding Federal Funding is deleted and replaced with the following to notify applicants of possible increases in expected number of awards:

"*Federal funding is subject to annual appropriations – all figures above should be treated as estimates. Furthermore, in anticipation of possible increased Fiscal Year 2009 funding appropriated under potential Congressional actions such as *The American Recovery and Reinvestment Act of 2009*, the total expected number of awards may increase."

All other terms and conditions remain unchanged.



Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

DE-PS36-09G099009
Modification No. 002

DATE: January 9, 2009
FROM: Sara Wilson, Contracting Officer
TO: All Prospective Applicants

SUBJECT: Modification No. 002 to Announcement DE-PS36-09G099009,
"20% Wind by 2030: Overcoming the Challenges"

The Announcement is amended as follows:

1. The following paragraph is inserted in Part 1 – FUNDING OPPORTUNITY DESCRIPTION, following the third paragraph:

"Two DOE Offices, EERE's WHTP and the Office of Electricity Delivery and Energy Reliability (OE), are collaborating on the transmission analysis, planning and assessments topic area. OE leads national efforts to modernize the electric grid; enhance security and reliability of the energy infrastructure; and facilitate recovery from disruptions to energy supply."

2. In Part I – FUNDING OPPORTUNITY DESCRIPTION, in the fourth paragraph beginning with "In May 2008, DOE issued the "20% Wind Energy by 2030" report", the first two bullets are deleted and replaced with the following:
 - "Major investments in transmission so the power generated in Midwest locations can be delivered to distant urban centers;
 - Larger electric load balancing area, in tandem with better regional planning and use of complementary generation and storage, so that grid operators can better integrate wind generation into the electric utility grid;"

DE-PS36-09G099009
Modification No. 002

3. The Topic Area Summary table at the end of Part I – FUNDING OPPORTUNITY DESCRIPTION is deleted and replaced with the following to revise the estimated Topic Area 4 funding :

Topic Area Summary

Topic Area	Total Estimated Federal Funding*	Estimated FY09 Federal Funding	Award Type	Expected Number of Awards	Required Cost Share	Estimated Range Per Award (DOE Share)	Period of Performance
1 - Supporting Wind Turbine Research and Testing	\$1.5 million	\$0.75 million	Grants	3 to 5	20%	\$200,000 - 400,000	1 - 2 years
2 - Market Acceptance	\$1.0 million	\$0.5 million	Grants	6 to 10	0%	\$50,000 to \$500,000 (see topic area description below)	1 - 2 years
3 - Environmental Impact	\$1.0 million	\$0.5 million	Grants	4 to 8	0%	\$50,000 - 100,000	1 - 2 years
4 - Transmission Analysis, Planning and Assessments	\$3.0 million	\$1.5 million	Grants	2 to 6	0%	\$200,000 - 400,000	1 - 2 years
5 - Workforce Development	\$1.0 million	\$0.5 million	Grants	2 to 5	0%	\$100,000 - 200,000	1 - 2 years
6 - Distributed Wind Technology	\$0.5 million	\$0.25 million	Grants	1 to 5	20%	\$0 - 150,000	1 - 2 years

*** Federal funding is subject to annual appropriations – all figures above should be treated as estimates.**

4. Under Topic Area 4: Transmission Analysis, Planning, and Assessment, AWARD INFORMATION, Section E. Expected Number of Awards, both Topic Areas 4A and 4B should now read:

“DOE anticipates making 2 to 6 awards depending on the size of the awards.”

All other terms and conditions remain unchanged.



Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

DE-PS36-09G099009

Modification No. 001

DATE: January 6, 2009
FROM: Sara Wilson, Contracting Officer
TO: All Prospective Applicants

SUBJECT: Modification No. 001 to Announcement DE-PS36-09G099009,
"20% Wind by 2030: Overcoming the Challenges"

This Announcement is modified to delete the PureEdge Application package that was included with the original Announcement in Grants.gov. Applicants that signed up to receive automatic notifications from Grants.gov will receive an email advising that the grant opportunity previously downloaded from Grants.gov has been deleted, and the Golden Field Office will no longer be accepting applications for this opportunity. **PLEASE NOTE THAT THIS ANNOUNCEMENT IS STILL OPEN** and clarifying information is provided below.

As indicated in the Announcement, Grants.gov is currently phasing out the use of the PureEdge software and transitioning to use of Adobe Reader software. Therefore, the PureEdge Application package is deleted, and until such time as the Adobe Application package is ready, an Application package will not be posted with this Announcement. Once the transition is complete, an amendment to the Announcement will be posted, along with the Adobe Application package.

Please note that the information requested in the Announcement will not change with the use of the Adobe Application package and does not preclude Applicants from working on the technical narrative and other required information identified in the Announcement.

Grants.gov will require Applicants to use the compatible version of Adobe Reader software to complete a Grants.gov Adobe application package. Please ensure you have the Grants.gov compatible version of Adobe Reader, by visiting the download software page at http://www.grants.gov/help/download_software.jsp

To locate the full announcement, go to <http://www.grants.gov/search/basic.do>, enter the CFDA or the Announcement Number, click on “Search”, click on “Opportunity Title”, then click on “Link to the Full Announcement”.

IMPORTANT: Applicants are advised to delete the PureEdge Application packages related to this Announcement that may have already been downloaded to computers, so as not to erroneously submit the wrong package.

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Topic Area 2: Market Acceptance

AWARD INFORMATION

- A. Background
- B. Type of Award Instrument
- C. Estimated Funding

- D. Maximum and Minimum Award Size**
- E. Expected Number of Awards**
- F. Anticipated Award Size**
- G. Period of Performance**
- H. Type of Application**

ELIGIBILITY INFORMATION

- A. Eligible Applicants**
- B. Cost Sharing**
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- I. Notice of Right to Conduct a Review of Financial Capability**
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AWARD INFORMATION

- A. Background**
- B. Type of Award Instrument**
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- D. Maximum and Minimum Award Size**
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- A. Eligible Applicants**
- B. Cost Sharing**
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- A. Background**
- B. Type of Award Instrument**
- C. Estimated Funding**
- D. Maximum and Minimum Award Size**
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- H. Type of Application**

ELIGIBILITY INFORMATION

- A. Eligible Applicants**
- B. Cost Sharing**
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- A. Review Criteria**
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AWARD INFORMATION

- A. Background**
- B. Type of Award Instrument**
- C. Estimated Funding**
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- F. Anticipated Award Size**
- G. Period of Performance**
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- A. Eligible Applicants**
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Topic Area 6: Distributed Wind Technology

AWARD INFORMATION

- A. Background**
- B. Type of Award Instrument**
- C. Estimated Funding**

- D. Maximum and Minimum Award Size**
- E. Expected Number of Awards**
- F. Anticipated Award Size**
- G. Period of Performance**
- H. Type of Application**

ELIGIBILITY INFORMATION

- A. Eligible Applicants**
- B. Cost Sharing**
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- D. Multiple Principal Investigators**

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PART I – FUNDING OPPORTUNITY DESCRIPTION

The Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE), Wind and Hydropower Technologies Program (WHTP) intends to issue a parallel Funding Opportunity Announcement (FOA) directed at industry partners and a Program Announcement (PA) directed at Department of Energy Laboratories to address wind development technical challenges as well as market acceptance barriers.

The parallel Announcements target support for the following six Topic Areas (explained in more detail below): Turbine research, development and testing; Market acceptance efforts; Environmental research and siting strategies; Transmission analysis, planning and assessments; Workforce development; and Distributed Wind Technology (DWT).

The Wind and Hydropower Program contributes directly to the Department of Energy's mission of improving national, energy, and economic security and increasing the diversity of our Nation's energy resources. The WHTP's mission is to maximize renewable energy utilization in the United States by leading the Nation's research and development efforts to improve wind and water energy generation technology, in coordination with stakeholders, and to address barriers to the use of renewable energy. Fulfilling this mission will result in greater energy security and enhanced domestic economic benefit through more diverse, clean, reliable, affordable, and secure domestic electricity supplies. The Wind Energy Program has increased focus on near- to medium-term actions to significantly accelerate use of wind energy technologies, thus reducing the Nation's dependence on imported and environmentally damaging energy sources. The Program launched an effort, in collaboration with industry, to assess the potential for and impact of providing 20% of the Nation's electrical energy from wind technology.

In May 2008, DOE issued the "20% Wind Energy by 2030" report. The report found that the Nation possesses affordable wind energy resources far in excess of those needed to enable a 20% scenario. However, major challenges need to be overcome and require action for 20% wind to be possible:

- Investment in a national transmission system, for example, the power generated in Midwest locations can be delivered to urban centers on the east coast;
- Larger electric load balancing areas are required, in tandem with better regional planning, so that regions can depend on a diversity of renewable generation sources;
- Continued reduction in wind turbine capital costs through technology advancement and improved manufacturing capabilities;
- Improved wind turbine performance and reduction of operating and maintenance costs through improved reliability;
- Addressing concerns about local siting, wildlife, and environmental issues within the context of electricity generation.
- Develop an abundant and skilled workforce to supply the growing renewable energy industry.

The report can be found at <http://www1.eere.energy.gov/windandhydro>.

Applicants will compete for DOE funding within the following Topic Areas:

1. Supporting Wind Turbine Research and Testing
2. Market Acceptance
3. Environmental Impact
4. Transmission Analysis, Planning and Assessments
5. Workforce Development
6. Distributed Wind Technology

Applicants may apply to more than one Topic Area provided they meet eligibility requirements as specified for each Topic Area (see “Eligibility Information”). An Applicant responding to multiple Topic Areas must provide separate, complete applications for each Topic Area. **Each application should be clearly marked by Topic Area, along with the descriptive title of the project, in Block 15 of the SF424 Application and the Project Summary/Abstract.**

Topic Area Summary

Topic Area	Total Estimated Federal Funding*	Estimated FY09 Federal Funding	Award Type	Expected Number of Awards	Required Cost Share	Estimated Range Per Award (DOE Share)	Period of Performance
1 - Supporting Wind Turbine Research and Testing	\$1.5 million	\$0.75 million	Grants	3 to 5	20%	\$200,000 - 400,000	1 - 2 years
2 - Market Acceptance	\$1.0 million	\$0.5 million	Grants	6 to 10	0%	\$50,000 to \$500,000 (see topic area description below)	1 - 2 years
3 - Environmental Impact	\$1.0 million	\$0.5 million	Grants	4 to 8	0%	\$50,000 - 100,000	1 - 2 years
4 - Transmission Analysis, Planning and Assessments	\$1.0 million	\$0.5 million	Grants	2 to 6	0%	\$200,000 - 400,000	1 - 2 years
5 - Workforce Development	\$1.0 million	\$0.5 million	Grants	2 to 5	0%	\$100,000 - 200,000	1 - 2 years
6 - Distributed Wind Technology	\$0.5 million	\$0.25 million	Grants	1 to 5	20%	\$0 - 150,000	1 - 2 years

***Federal funding is subject to annual appropriations – all figures above should be treated as estimates.**

PART II – TOPIC AREA DETAILS

Note: Part II of this announcement contains six separate sections describing each Topic Area in detail including full descriptions of each Topic Area as well as award, eligibility, and merit review information.

Topic Area 1: Supporting Wind Turbine Research and Testing

AWARD INFORMATION

A. BACKGROUND

Objectives: Current turbine technology has enabled wind energy to become a viable power source in today's energy market. Even so, wind energy provides only about 1% of total U.S. electricity generation. Advancements in turbine technology that have the potential to increase wind energy's presence are needed. These areas of study include reducing capital costs, increasing availability and capacity factors, and mitigating risk through enhanced system reliability. With sufficient research, development, and demonstration (RD&D), these new advances could have a significant impact on commercial product lines in 2015. Applicants will be required to submit commercialization business plans. This Topic Area is seeking projects in the following areas:

- Manufacturing advances in design, process automation and fabrication techniques to reduce product-to-product variability and premature failure while increasing the domestic manufacturing base including, but not limited to:
 - Improving quality and use of lighter weight, advanced materials for turbine blades, towers, and other components. Development of automated and repeatable production techniques including greater use of robotics and process controls for lamination, blade finishing, trimming, grinding, painting, materials handling and inspection
 - Turbine Reliability and Operability Research & Development to create more reliable components; improve turbine capacity factors; and reduce installation and operations and maintenance costs across the industry

B. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this funding opportunity announcement.

C. ESTIMATED FUNDING

Approximately \$ 750,000 is expected to be available for new awards in FY 2009 and an additional \$ 750,000 is expected to be available for awards made under Topic Area 1 in FY 2010.

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 1):
\$ 400,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 1): \$

200,000

E. EXPECTED NUMBER OF AWARDS

DOE anticipates making 3 to 5 awards under Topic Area 1, depending on the size of the awards.

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 200,000 – \$ 400,000 range for the total project period.

G. PERIOD OF PERFORMANCE

DOE anticipates making awards that will run for up to 2 years.

H. TYPE OF APPLICATION

Only new applications will be accepted under this announcement (e.g., applications for renewals of existing DOE funded projects will not be considered).

ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

All types of entities are eligible to apply, except Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

The cost share must be at least 20% of the total allowable costs of the project (i.e., the sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable costs of the project) and must come from non-Federal sources unless otherwise allowed by law.

C. OTHER ELIGIBILITY REQUIREMENTS

Federally Funded Research and Development Center (FFRDC) Contractors

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

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. Save the authorization in a single file named "FFRDC_Auth.pdf," and click on "Add Optional Other Attachment" to attach.

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, and will not adversely impact execution of the DOE assigned programs at the laboratory.”

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

FFRDC Contractor Effort:

The FFRDC contractor effort, in aggregate, shall not exceed 25% 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) in projects awarded under this FOA is allowed. The applicant, whether a single organization or team/partnership/consortium, must indicate in the application if the project will include multiple PIs. (See Part III, Section C.) The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify in the application the Contact PI/Project Coordinator and provide a “Coordination and Management Plan” that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- Process for making decisions on scientific/technical direction
- Publications;
- Intellectual property issues;
- Communication plans’
- Procedures for resolving conflicts; and
- PI’s roles and administrative, technical and scientific responsibilities for the project

APPLICATION REVIEW INFORMATION

A. REVIEW CRITERIA

1. Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

The following criteria are proposed to be used to evaluate Applications within Topic 1: Supporting Wind Turbine Research and Testing:

Criterion 1: Technical Merit and Innovation

Weight: [30%]

- Extent to which the proposed technology addresses the technical areas of interest outlined in the solicitation and the potential superiority of the proposed project compared to existing technology
- Credibility as supported by sound engineering principles and assumptions; including experimental data and prior results to demonstrate the viability of the concept, including a clear understanding of the current state-of-the-art
- Demonstrated ability of the project to help further industry-wide commercial development of the relevant technology

Criterion 2: Technical Approach and Project Research Plan Weight: [30%]

- Viability of technical approach and the project research plan to achieve FOA objectives
- Degree to which proposed plan is clearly stated, organized, achievable and technically feasible, including the adequacy and completeness of proposed tasks and the resources identified to successfully address all elements of the technical plan
- Viability, completeness, and timeliness of applicant's decision points and/or deliverables in ensuring objective evaluation of progress against the proposed plan

Criterion 3: Qualifications and Resources

Weight: [25%]

- Capabilities, experience, qualifications, and credentials of team members, including the credibility of applicant's team experience and record of success in technical innovation and performance
- Availability of required equipment, laboratory and demonstration facilities, analytic support, and other necessary resources for performing the proposed project

- Demonstrated support of each team member's participation and/or cost share via letter of commitment

Criterion 4: Commercialization Plan

Weight: [15%]

- Level, variety, and comprehensiveness of plan to disseminate results of research to others in the industry (may include conferences, papers, workshops, and web-based information sharing)
- Likelihood that project will result in technology deployment and commercial development including a business plan – potential market impact by 2015
- Level of the market share projected to be captured by the technology at full commercialization (discussion should include end-user value, potential buyers/licensees and preliminary economic analysis)

3. Other Selection Factors

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

1. Geographic diversity of projects.
2. Technological diversity of projects.
3. Cost share offered above the minimum amount required.

B. REVIEW AND SELECTION PROCESS

a. Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is at <http://www.management.energy.gov/documents/meritrev.pdf>.

It is very important that those documents, Project Abstract and Project Narrative file, that will be used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

b. Selection

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

c. Discussions and Award

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

(4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates notifying applicants selected for award by **the end of April 2009** and making awards by **the end of September 2009**.

OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

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

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

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

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

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

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

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

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

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

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this 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.

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 reserves 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

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.

Topic Area 2: Market Acceptance

AWARD INFORMATION

A. BACKGROUND

Objectives: The 20% Wind Energy scenario by 2030 will require significantly enhanced outreach efforts on a national, state, regional, and local level to communicate the wind development opportunities, benefits, challenges, and required infrastructure upgrade and regulatory actions to a diverse set of stakeholders. There is still a need to develop wind siting analysis tools and best practices in order to expand wind energy as a viable option for power generation. Both States and electric utilities have the ability to enable sweeping progressive changes across large market areas for wind power. The vision for 20% Wind by 2030 envisions utilities and States as essential stakeholders and critical to the success of market acceptance. Accordingly, this Topic Area also supports (1) new wind working groups and (2) organizations that can provide targeted wind information, education and resources to electric utilities. This Topic Area is seeking projects in the following three areas:

Topic Area 2A: Wind Powering America Activities

- Document, disseminate, develop and conduct analytical and reference tools on wind technology transfer activities to ensure electric utilities are utilizing government and private industry resources that assist with integration of wind energy into the resource planning process
- Establish state and regional wind project development collaborations in partnership with electric utilities, electric utility associations, electric utility joint action agencies, Power Marketing Administrations, and generation and transmission organizations
- Conduct market research concerning utility resource planning activities and regional joint resource planning efforts. Develop innovative business strategies to advance wind energy regionally
- Provide technical assistance to states on model legislation, where appropriate, new policy options including implementation actions to advance wind development in complex siting scenarios. Activities will address the challenges of transmission, environmental impacts, radar and economic development
- Identify, analyze and promote new best practices and strategies to accelerate the dissemination of innovative and strategic state and regional activities in promoting the acceptance of wind
- Promote outreach to electric utilities in the form of targeted wind information, education and resources regarding the benefits and opportunities for large-scale wind development

Topic Area 2B: Distributed Wind Technology (DWT) Best Practices

- Preparation of case studies of local, state and federal policies that specifically impact the cost of energy (COE) of DWT and small wind. This would include analysis of portfolio standards, incentives, net metering rules, renewable energy credits, carbon credits, zoning, and other policies. The result would be a guide of what works for DWT and sources for additional information

Topic Area 2C: Distributed Wind Technology (DWT) Site Analysis Tool

- A site analysis tool is needed so that consumers can accurately predict the performance of a Distributed Wind System. The objectives of this tool are to:
 - Provide a web-based publicly available software tool that would be user friendly, easily updated, and secure for individuals to use for site selection and turbine selection
 - Develop links to wind resource maps for distributed wind assessments that are appropriate for alternate hub heights
 - Estimate monthly and annual electrical power generation using manufacturer's certified performance data that would integrate the power curves with the location's specific wind resource
 - Allow for comparison of power production between alternate turbines and tower heights
 - Allow the user to input appropriate data to describe site conditions (i.e. degree of flagging, terrain, height of adjacent trees or obstructions, etc.) and allow for comparison of power production between alternate turbines and tower heights.
 - Provide estimated noise levels at adjacent occupied structures
 - Provide a visual approximation of the selected turbine in the geographic and physical setting described by the user
 - Accept user input for system costs and develop links to incentive data that would provide estimated project economic analysis
 - List certified installer contact information for the user to contact
 - Provide the consumer with a set of estimated conditions that could be used at zoning hearings to facilitate acceptance and approval

The project plan for an application in this Topic Area should include a go/no-go decision point after the first year budget period and prior to deployment.

B. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this funding opportunity announcement.

C. ESTIMATED FUNDING

For all of Topic Area 2, approximately \$ 500,000 is expected to be available for new awards in FY 2009 and an additional \$ 500,000 is expected to be available for awards made under this announcement in FY 2010.

D. MAXIMUM AND MINIMUM AWARD SIZE

Topic Area 2A:

Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$ 100,000

Floor (i.e., the minimum amount for an individual award made under this announcement): \$ 50,000

Topic Area 2B:

Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$ 100,000

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

Topic Area 2C:

Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$ 500,000

Floor (i.e., the minimum amount for an individual award made under this announcement): \$ 250,000

E. EXPECTED NUMBER OF AWARDS**Topic Area 2A:**

DOE anticipates making 4 to 8 awards under this announcement depending on the size of the awards.

Topic Area 2B:

DOE anticipates making 1 award under this announcement.

Topic Area 2C:

DOE anticipates making 1 award under this announcement.

F. ANTICIPATED AWARD SIZE**Topic Area 2A:**

DOE anticipates that awards will be in the \$ 50,000 – \$ 100,000 range for the total project period.

Topic Area 2B:

DOE anticipates that awards will be in the \$ 0 – \$ 100,000 range for the total project period.

Topic Area 2C:

DOE anticipates that awards will be in the \$ 250,000 – \$ 500,000 range for the total project period.

G. PERIOD OF PERFORMANCE

DOE anticipates making awards that will run for up to 2 years.

H. TYPE OF APPLICATION

Only new applications will be accepted under this announcement (e.g., applications for renewals of existing DOE funded projects will not be considered).

ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

All types of entities are eligible to apply, except Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS

Federally Funded Research and Development Center (FFRDC) Contractors

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

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. Save the authorization in a single file named "FFRDC_Auth.pdf," and click on "Add Optional Other Attachment" to attach.

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, and will not adversely impact execution of the DOE assigned programs at the laboratory."

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

FFRDC Contractor Effort:

The FFRDC contractor effort, in aggregate, shall not exceed 25% 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) in projects awarded under this FOA is allowed. The applicant, whether a single organization or team/partnership/consortium, must however indicate in the application if the project will include multiple PIs. (See Part III, Section C.) The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify in the application the Contact PI/Project Coordinator and provide a “Coordination and Management Plan” that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- Process for making decisions on scientific/technical direction
- Publications;
- Intellectual property issues;
- Communication plans;
- Procedures for resolving conflicts; and
- PI’s roles and administrative, technical and scientific responsibilities for the project

APPLICATION REVIEW INFORMATION

A. REVIEW CRITERIA

1. Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

The following criteria are proposed to be used to evaluate Applications within

Topic 2: Market Acceptance:

Criterion 1: Market Impact

Weight: [30%]

- Ability to impact the market through Federal, State, Local and regional efforts
- Demonstrated understanding of critical market barriers including detailed plans and a schedule to address them

- Projected market acceleration impact of proposed efforts on wind development

Criterion 2: Technical Approach and Project Plan

Weight: [30%]

- Viability of technical approach and plan to achieve FOA objectives
- Degree to which proposed plan is clearly stated, organized, achievable and technically feasible, including the adequacy and completeness of proposed tasks and the resources identified to successfully address all elements of the technical plan
- Viability, completeness, and timeliness of applicant's decision points and/or deliverables in ensuring objective evaluation of progress against the proposed plan

Criterion 3: Qualifications and Resources

Weight: [25%]

- Capabilities, experience, qualifications, and credentials of team members, including the credibility of applicant's team experience and record of success in technical innovation and performance
- Availability of required equipment, laboratory and demonstration facilities, analytic support, and other necessary resources for performing the proposed project
- Demonstrated support of each team member's participation and/or cost share via letter of commitment

Criterion 4: Results Dissemination

Weight: [15%]

- Level, variety, and comprehensiveness of plan to disseminate results of research to others in the wind industry (may include conferences, papers, workshops, and web-based information sharing)

3. Other Selection Factors

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

1. Geographic diversity of projects.
2. Technological diversity of projects.
3. Cost share offered above the minimum amount required.

B. REVIEW AND SELECTION PROCESS

a. Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review

Guide for Financial Assistance and Unsolicited Proposals.” This guide is at <http://www.management.energy.gov/documents/meritrev.pdf>.

It is very important that those documents, Project Abstract and Project Narrative file, that will be used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

b. Selection

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

c. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates notifying applicants selected for award by **the end of April 2009** and making awards by **the end of September 2009**.

OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

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

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

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

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

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

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

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except

as specifically negotiated in a particular agreement to satisfy DOE's own needs or to insure the commercialization of technology developed under a DOE agreement.

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

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this 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.

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 reserves 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

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.

Topic Area 3: Environmental Impact

AWARD INFORMATION

A. BACKGROUND

Objectives: Wind energy is one of the cleanest and most environmentally neutral energy sources in the world today. Compared to conventional fossil fuel energy sources, wind energy generation does not degrade the quality of our air and water and can make important contributions to reducing climate-change effects and meeting national energy security goals. In addition, it avoids environmental effects from the mining, drilling, and hazardous waste storage associated with using fossil fuels. Wind energy offers many ecosystem benefits, especially as compared to other forms of electricity production. Wind energy production can also, however, negatively affect wildlife habitat and individual species, and measures to mitigate prospective impacts may be required. As with all responsible industrial development, wind power facilities need to adhere to high standards for environmental protection. Partnering with U.S. DOE National Laboratories is encouraged. This Topic Area is seeking projects that address environmental concerns as described below:

- Develop high-resolution spatial data of habitat and/or migration corridors for avian and bat species of concern in regions of high potential wind development.
- Develop a risk assessment framework to identify and evaluate siting questions and solutions related to: (a) wildlife and habitat, (b) radar and safety, (c) aesthetic and community property values, and (d) other concerns that arise such as noise, radio interference, flicker, etc.
- Conduct studies assessing the impacts of wind development on avian and bat species of concern:
 - Before-after-control-impact (BACI)-type assessments of habitat fragmentation and similar impacts of wind energy development on grassland/shrub steppe avian species such as sage grouse
 - Genetic studies to better effective population sizes of affected bat species and potential population impacts that may be associated with wind development
 - Studies to evaluate the costs to developers and benefits to bats of strategies to avoid, minimize, or compensate for impacts on affected bat species.

B. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this funding opportunity announcement.

C. ESTIMATED FUNDING

Approximately \$ 500,000 is expected to be available for new awards in FY 2009 and an additional \$ 500,000 is expected to be available for awards made under Topic Area 3 in FY 2010.

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 3):
\$ 100,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 3): \$
50,000

E. EXPECTED NUMBER OF AWARDS

DOE anticipates making 4 to 8 awards under Topic Area 3 depending on the size of the awards.

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 50,000 – \$ 100,000 range for the total project period.

G. PERIOD OF PERFORMANCE

DOE anticipates making awards that will run for up to 2 years.

H. TYPE OF APPLICATION

Only new applications will be accepted under this announcement (e.g., applications for renewals of existing DOE funded projects will not be considered).

ELIGIBILITY INFORMATION**A. ELIGIBLE APPLICANTS**

All types of entities are eligible to apply, except Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS**Federally Funded Research and Development Center (FFRDC) Contractors**

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

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. Save the authorization in a single file named "FFRDC_Auth.pdf," and click on "Add Optional Other Attachment" to attach.

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, and will not adversely impact execution of the DOE assigned programs at the laboratory.”

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

FFRDC Contractor Effort:

The FFRDC contractor effort, in aggregate, shall not exceed 25% 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) in projects awarded under this FOA is allowed. The applicant, whether a single organization or team/partnership/consortium, must however indicate in the application if the project will include multiple PIs. (See Part III, Section C.) The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify in the application the Contact PI/Project Coordinator and provide a “Coordination and Management Plan” that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- Process for making decisions on scientific/technical direction
- Publications;
- Intellectual property issues;
- Communication plans’
- Procedures for resolving conflicts; and
- PI’s roles and administrative, technical and scientific responsibilities for the project

APPLICATION REVIEW INFORMATION

A. REVIEW CRITERIA

1. Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

The following criteria are proposed to be used to evaluate Applications within
Topic 3: Environmental Impact:

Criterion 1: Technical Merit and Innovation

Weight: [30%]

- Extent to which the application addresses the technical areas of interest outlined in the solicitation and the potential superiority of the proposed project compared to existing approaches
- Credibility as supported by sound engineering principles and assumptions; including experimental data and prior results to demonstrate the viability of the concept, including a clear understanding of the current state-of-the-art
- Demonstrated ability and impact of the project to help further industry-wide commercial development of wind

Criterion 2: Technical Approach and Project Research Plan Weight: [30%]

- Degree to which proposed plan is clearly stated, organized, achievable and technically feasible, including the adequacy and completeness of proposed tasks and the resources identified to successfully address all elements of the technical plan
- Viability, completeness, and timeliness of applicant's decision points and/or deliverables in ensuring objective evaluation of progress against the proposed plan

Criterion 3: Qualifications and Resources

Weight: [25%]

- Capabilities, experience, qualifications, and credentials of team members, including the credibility of applicant's team experience and record of success in technical innovation and performance
- Availability of required equipment, laboratory and demonstration facilities, analytic support, and other necessary resources for performing the proposed project

- Demonstrated support of each team member's participation and/or cost share via letter of commitment

Criterion 4: Results Dissemination

Weight: [15%]

- Level, variety, and comprehensiveness of plan to disseminate results of research to others in the wind industry (may include conferences, papers, workshops, and web-based information sharing)

3. Other Selection Factors

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

1. Geographic diversity of projects.
2. Technological diversity of projects.
3. Cost share offered above the minimum amount required.

B. REVIEW AND SELECTION PROCESS

a. Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is at <http://www.management.energy.gov/documents/meritrev.pdf>.

It is very important that those documents, Project Abstract and Project Narrative file, that will be used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

b. Selection

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

c. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates notifying applicants selected for award by **the end of April 2009** and making awards by **the end of September 2009**.

OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

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

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

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

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

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

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

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

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

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

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this 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.

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 reserves 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

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.

Topic Area 4: Transmission Analysis, Planning and Assessments

AWARD INFORMATION

A. BACKGROUND

Topic 4A: Utility Wind Energy Integration

Objectives: Wind power development in the United States is exceeding expectations. For example, up to 6000 MW of wind needs interconnection to the Bonneville Power Administration (BPA) system within the next five years, which will place BPA with the highest proportion of wind power to total electric load for large power systems in the nation. The expected pace of wind power growth will soon outstrip current capability to provide the integration services required for reliable system operation, and there is a need to explore innovative solutions for continuing reliable operation with the most economic integration of additional wind energy. A number of these integration solution paths involve closer cooperation among utility balancing authorities in the region for supplying third party integration services, dynamic scheduling of wind power across interties, pooling integration responsibility and services, and adopting new transmission scheduling, practices and procedures.

- Provide support to utilities to facilitate wind energy integration. Support efforts would focus on augmenting utility capability to support collaborative planning, analysis, and renewable integration project implementation. Utility applicants should identify a set of 2-3 specific integration strategies for initial focus, and identify benefits expected from successful application.

Topic 4B: Renewable Energy Storage Feasibility Studies

Objectives: While integration of wind energy in the United States to date has been enabled by operating changes and flexibility available in host grid systems (in cases ranging up to 20% energy penetration of a utility control area), higher penetration levels will drive the need for advanced integration strategies and grid flexibility investments, such as energy storage technologies. Opportunities are available to apply advanced integration strategies in high penetration renewable energy areas in order to gain an understanding of the performance of emerging technologies and the markets that will support their application.

- Develop preliminary project designs and perform feasibility studies of integrated renewable energy system applications with high renewable energy penetration (beyond 20% of target demand) as enabled by advanced integration strategies such as state of the art forecasting, renewable energy and grid system monitoring and controls, and storage technologies. The preliminary design should incorporate novel transportable energy storage systems such as lithium ion battery, hydrogen fuel cell, and lead-carbon capacitor technologies.

B. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this program announcement.

C. ESTIMATED FUNDING

For all of Topic Area 4, approximately \$ 500,000 is expected to be available in FY 2009 and an additional \$ 500,000 is expected to be available for awards made under this announcement in FY 2010.

D. MAXIMUM AND MINIMUM AWARD SIZE

Topic Area 4A:

Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$ 400,000

Floor (i.e., the minimum amount for an individual award made under this announcement): \$ 200,000

Topic Area 4B:

Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$ 400,000

Floor (i.e., the minimum amount for an individual award made under this announcement): \$ 200,000

E. EXPECTED NUMBER OF AWARDS

Topic Area 4A:

DOE anticipates making 1 to 3 awards depending on the size of the awards.

Topic Area 4B:

DOE anticipates making 1 to 3 awards depending on the size of the awards.

F. ANTICIPATED AWARD SIZE

Topic Area 4A:

DOE anticipates that awards will be in the \$ 200,000 – \$ 400,000 range for the total project period.

Topic Area 4B:

DOE anticipates that awards will be in the \$ 200,000 – \$ 400,000 range for the total project period.

G. PERIOD OF PERFORMANCE

DOE anticipates making awards that will run for up to 2 years.

H. TYPE OF APPLICATION

Only new applications will be accepted under this announcement (e.g., applications for renewals of existing DOE funded projects will not be considered).

ELIGIBILITY INFORMATION**A. ELIGIBLE APPLICANTS**

All types of entities are eligible to apply, except Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS**Federally Funded Research and Development Center (FFRDC) Contractors**

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

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. Save the authorization in a single file named "FFRDC_Auth.pdf," and click on "Add Optional Other Attachment" to attach.

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, and will not adversely impact execution of the DOE assigned programs at the laboratory."

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

FFRDC Contractor Effort:

The FFRDC contractor effort, in aggregate, shall not exceed 25% 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) in projects awarded under this FOA is allowed. The applicant, whether a single organization or team/partnership/consortium, must however indicate in the application if the project will include multiple PIs. (See Part III, Section C.) The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify in the application the Contact PI/Project Coordinator and provide a “Coordination and Management Plan” that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- Process for making decisions on scientific/technical direction
- Publications;
- Intellectual property issues;
- Communication plans’
- Procedures for resolving conflicts; and
- PI’s roles and administrative, technical and scientific responsibilities for the project

APPLICATION REVIEW INFORMATION

A. REVIEW CRITERIA

1. Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

The following criteria are proposed to be used to evaluate Applications within Topic 4: Transmission Analysis, Planning and Assessments:

Criterion 1: Technical Merit and Innovation

Weight: [25%]

- Extent to which the proposed technology/study/analysis addresses the technical areas of interest outlined in the solicitation and the potential superiority of the proposed project compared to existing technology
- Credibility as supported by sound engineering principles and assumptions; including experimental data and prior results to demonstrate the viability of the concept, including a clear understanding of the current state-of-the-art
- Demonstrated ability of the project to help further industry-wide commercial development of the relevant technology

Criterion 2: Technical Approach and Project Research Plan Weight: [25%]

- Viability of technical approach and the project research plan to achieve FOA objectives
- Degree to which proposed plan is clearly stated, organized, achievable and technically feasible, including the adequacy and completeness of proposed tasks and the resources identified to successfully address all elements of the technical plan
- Viability, completeness, and timeliness of applicant's decision points and/or deliverables in ensuring objective evaluation of progress against the proposed plan

Criterion 3: Qualifications and Resources**Weight: [25%]**

- Capabilities, experience, qualifications, and credentials of team members, including the credibility of applicant's team experience and record of success in technical innovation and performance
- Availability of required equipment, laboratory and demonstration facilities, analytic support, and other necessary resources for performing the proposed project
- Demonstrated support of each team member's participation and/or cost share via letter of commitment

Criterion 4: Market Impact**Weight: [25%]**

- Level, variety, and comprehensiveness of plan to disseminate results of research to others in the wind industry (may include conferences, papers, workshops, and web-based information sharing)
- Projected market acceleration impact of proposed efforts on wind development

3. Other Selection Factors

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

1. Geographic diversity of projects.
2. Technological diversity of projects.
3. Cost share offered above the minimum amount required.

B. REVIEW AND SELECTION PROCESS**a. Merit Review**

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review

Guide for Financial Assistance and Unsolicited Proposals.” This guide is at <http://www.management.energy.gov/documents/meritrev.pdf>.

It is very important that those documents, Project Abstract and Project Narrative file, that will be used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

b. Selection

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

c. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates notifying applicants selected for award by **the end of April 2009** and making awards by **the end of September 2009**.

OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

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

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

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

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

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

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

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except

as specifically negotiated in a particular agreement to satisfy DOE's own needs or to insure the commercialization of technology developed under a DOE agreement.

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

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this 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.

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 reserves 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

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.

Topic Area 5: Workforce Development

AWARD INFORMATION

A. BACKGROUND

Objectives: Major expansion of wind power in the United States would require substantial numbers of skilled personnel available to design, build, operate, maintain, and advance wind power equipment and technology. Toward this end, a number of post secondary school educational programs focused on wind energy are already offered around the nation. Although this is an excellent beginning, many more programs of a similar nature will be needed nationwide to satisfy the needs stemming from the 20% Wind Scenario. This Topic Area is seeking projects that address ways to strengthen workforce development.

- Workforce development efforts will be directed at innovative approaches and partnerships to retrain skilled unemployed workers from industry as well as providing new graduates with knowledge and skills needed by the wind industry. This will include the development, standardization and certification of wind energy curricula for wind-specific craftsman skills, science, engineering, and other disciplines supporting the wind industry's rapid growth. The program places a high priority on power engineering curriculum improvements. Partnerships with private industry, U.S. DOE National Laboratories and others are encouraged.

B. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this funding opportunity announcement.

C. ESTIMATED FUNDING

Approximately \$ 500,000 is expected to be available for new awards in FY 2009 and an additional \$ 500,000 is expected to be available for awards made under Topic Area 5 in FY 2010.

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 5):
\$ 200,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 5): \$
100,000

E. EXPECTED NUMBER OF AWARDS

DOE anticipates making 2 to 5 awards under Topic Area 5 depending on the size of the awards.

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 100,000 – \$ 200,000 range for the total project period.

G. PERIOD OF PERFORMANCE

DOE anticipates making awards that will run for up to 2 years.

H. TYPE OF APPLICATION

Only new applications will be accepted under this announcement (e.g., applications for renewals of existing DOE funded projects will not be considered).

ELIGIBILITY INFORMATION**A. ELIGIBLE APPLICANTS**

All types of entities are eligible to apply, except Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS**Federally Funded Research and Development Center (FFRDC) Contractors**

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

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. Save the authorization in a single file named "FFRDC_Auth.pdf," and click on "Add Optional Other Attachment" to attach.

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, and will not adversely impact execution of the DOE assigned programs at the laboratory."

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

FFRDC Contractor Effort:

The FFRDC contractor effort, in aggregate, shall not exceed 25% 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) in projects awarded under this FOA is allowed. The applicant, whether a single organization or team/partnership/consortium, must however indicate in the application if the project will include multiple PIs. (See Part III, Section C.) The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify in the application the Contact PI/Project Coordinator and provide a "Coordination and Management Plan" that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- Process for making decisions on scientific/technical direction
- Publications;
- Intellectual property issues;
- Communication plans'
- Procedures for resolving conflicts; and
- PI's roles and administrative, technical and scientific responsibilities for the project

APPLICATION REVIEW INFORMATION

A. REVIEW CRITERIA

1. Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

The following criteria are proposed to be used to evaluate Applications within
Topic 5: Workforce Development:

Criterion 1: Project Description and Management Plan **Weight: [25%]**

- Clarity and completeness of the description of each activity necessary to complete the project
- Soundness of the project management plan with respect to proposed tasks, organizational structure, deliverables, schedule, and objectives
- Adequacy, appropriateness, and reasonableness of the cost and schedule to complete the proposed project

Criterion 2: Qualifications and Resources **Weight: [30%]**

- Demonstrated capabilities of the applicant and participants to comprehensively address all aspects of the proposed project including knowledge of wind systems and related technologies
- Demonstrated level of partnership with private industry, academia, NGOs and state/federal government
- Level of experience and commitment of applicant and participants with regard to development of curricula in general and specifically for renewable/wind energy
- Availability of required equipment, laboratory and demonstration facilities, analytic support, and other necessary resources for performing the proposed project
- Demonstrated support of each team member's participation and/or cost share via letter of commitment

Criterion 3: Wind Curriculum **Weight: [30%]**

- Adequacy, comprehensiveness and viability of proposed wind energy curriculum and training/internship program
- Projected impact of wind curriculum on the development of wind workforce expertise

Criterion 4: Results Dissemination **Weight: [15%]**

- Level, variety, and comprehensiveness of plan to disseminate results of research to others in the wind industry (may include conferences, papers, workshops, and web-based information sharing)

3. Other Selection Factors

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

1. Geographic diversity of projects.
2. Technological diversity of projects.
3. Cost share offered above the minimum amount required.

B. REVIEW AND SELECTION PROCESS

a. Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is at <http://www.management.energy.gov/documents/meritrev.pdf>.

It is very important that those documents, Project Abstract and Project Narrative file, that will be used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

b. Selection

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

c. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates notifying applicants selected for award by **the end of April 2009** and making awards by **the end of September 2009**.

OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this

announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

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

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

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

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

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

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

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

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

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

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this 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.

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 reserves 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

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.

Topic Area 6: Distributed Wind Technology

AWARD INFORMATION

A. BACKGROUND

Objectives: The primary objective of this Topic Area is to independently test commercially-available small wind turbines. Distributed wind turbines are an essential element of total wind system development and deployment, which have the potential to make an important impact through community acceptance and energy contributions to the 20% wind scenario. Distributed Wind Technology (DWT) applications refer to turbine installations on the customer side of the utility meter or near the point of use. These machines range in size from less than 1 kW to multi-megawatt, utility-scale machines and are typically used to offset electricity consumption at the retail rate. Small Turbine Technology is a subset of DWT. To be considered for this FOA Topic Area, blades must have a swept area of less than or equal to 200 square meters and a turbine capacity rating less than or equal to 65kW.

Distributed wind turbines can be interconnected on the distribution lines across the United States and provide economic development for America's heartland, where there is a vast wind resource and transmission constraints that might limit large scale development. A new program goal was established to expand the number of distributed wind turbines deployed by 5-fold from the baseline established in 2007 by 2015. The objectives of this Topic Area are to help expand the U.S. market; to provide technical development of Distributed Wind projects; and build on numerous successful turbine systems that are currently in production. The U.S. Department of Energy is seeking applications in the following area:

Partnerships with small wind turbine manufacturers ($\leq 65\text{kW}$) for independent testing of their turbines at the National Wind Technology Center (NWTC) near Boulder, CO for noise, energy output, and other factors and subsequent certification under International Electrotechnical Commission (IEC) standards. The test facilities at the NWTC have been accredited by the American Association of Laboratory Accreditation (A2LA). The test results can be used by the participating manufacturers to have their turbines certified by the Small Wind Certification Corporation, a nonprofit organization supported by DOE, American Wind Energy Association (AWEA) and State Energy Offices. This Topic Area targets commercially available turbines that have a high probability of success in the U.S. market over the next several years.

The goals of this testing include the following:

- Reduce barriers to wind energy expansion by providing scientific testing data, an important goal for DOE's Wind and Hydropower Technologies Program
- Target commercially available wind power generation systems with a high probability of success in the U.S. market over the next several years
- Select representative models with varying technologies for testing

- Distinguish reliable, safe, wind power generation systems from products that do not perform as advertised or are hazardous
- Disseminate test results for small wind power generation systems that are independently tested at the NWTC
- Test the wind power generation systems in accordance with IEC and American Wind Energy Association (AWEA) industry standards
- Post test results on publicly available web sites that can then be used, for example, by consumers to compare performance of the wind turbines

Applicants will be responsible for oversight of all phases of project site preparation, providing equipment to be tested, delivery of equipment to the NWTC, installation of the equipment at the NWTC, turbine commissioning and acceptance, operation and maintenance support for a period of one to two years, post-test inspection, review of test documentation and removal of the equipment following the testing.

The NWTC will have primary responsibility for data acquisition and testing according to IEC and the AWEA proposed DWT standard. The NWTC will assist the applicant in the installation. All test data will be collected by the NWTC and will be made publicly available at the conclusion of the testing. The NWTC will complete a tear down and inspection of the components at the conclusion of the project. The applicant should include the NWTC work as part of the project scope, however, the NWTC work should not be included in the proposed budget. The DOE will fund NREL (NWTC) separately.

B. TYPE OF AWARD INSTRUMENT

DOE anticipates awarding grants under this funding opportunity announcement.

C. ESTIMATED FUNDING

Approximately \$ 250,000 is expected to be available for new awards in FY 2009 and an additional \$ 250,000 is expected to be available for awards made under Topic Area 6 in FY 2010.

D. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under Topic Area 6):
\$ 150,000

Floor (i.e., the minimum amount for an individual award made under Topic Area 6): \$
None

E. EXPECTED NUMBER OF AWARDS

DOE anticipates making 1 to 5 awards under Topic Area 6 depending on the size of the awards.

F. ANTICIPATED AWARD SIZE

DOE anticipates that awards will be in the \$ 0 – \$ 150,000 range for the total project period.

G. PERIOD OF PERFORMANCE

DOE anticipates making awards that will run for up to 2 years.

H. TYPE OF APPLICATION

Only new applications will be accepted under this announcement (e.g., applications for renewals of existing DOE funded projects will not be considered).

ELIGIBILITY INFORMATION**A. ELIGIBLE APPLICANTS**

All types of entities are eligible to apply, except Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

The cost share must be at least 20 % of the total allowable costs of the project (i.e., the sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable costs of the project) and must come from non-Federal sources unless otherwise allowed by law.

C. OTHER ELIGIBILITY REQUIREMENTS**Federally Funded Research and Development Center (FFRDC) Contractors**

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

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. Save the authorization in a single file named "FFRDC_Auth.pdf," and click on "Add Optional Other Attachment" to attach.

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, and will not adversely impact execution of the DOE assigned programs at the laboratory."

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

FFRDC Contractor Effort:

The FFRDC contractor effort, in aggregate, shall not exceed 25% 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) in projects awarded under this FOA is allowed. The applicant, whether a single organization or team/partnership/consortium, must however indicate in the application if the project will include multiple PIs. (See Part III, Section C.) The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify in the application the Contact PI/Project Coordinator and provide a "Coordination and Management Plan" that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

- Process for making decisions on scientific/technical direction
- Publications;
- Intellectual property issues;
- Communication plans'
- Procedures for resolving conflicts; and
- PI's roles and administrative, technical and scientific responsibilities for the project

APPLICATION REVIEW INFORMATION

A. REVIEW CRITERIA

1. Initial Review Criteria

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

The following criteria are proposed to be used to evaluate Applications within Topic 6: Distributed Wind Technology:

Criterion 1: Technical Merit and Innovation

Weight: [25%]

- Extent to which the proposed technology addresses the technical areas of interest outlined in the solicitation and the potential superiority of the proposed project compared to existing technology
- Credibility as supported by sound engineering principles and assumptions; including experimental data and prior results to demonstrate the viability of the concept, including a clear understanding of the current state-of-the-art
- Demonstrated ability of the wind energy generator to help further industry-wide commercial development of the relevant technology

Criterion 2: Technical Approach and Project Plan

Weight: [20%]

- Degree to which proposed plan is clearly stated, organized, achievable and technically feasible, including the adequacy and completeness of proposed tasks and the resources identified to successfully address all elements of the technical plan
- Viability, completeness, and timeliness of applicant's decision points and/or deliverables in ensuring objective evaluation of progress against the proposed plan

Criterion 3: Qualifications and Resources

Weight: [25%]

- Capabilities, experience, qualifications, and credentials of team members, including the credibility of applicant's team experience and record of success in technical innovation and performance
- Availability of required equipment, analytic support, and other necessary resources for performing the proposed project
- Demonstrated support of each team member's participation and/or cost share via letter of commitment

Criterion 4: Commercialization Plan

Weight: [30%]

- Comprehensiveness of business plan to include marketing, manufacturing and distribution
- Likelihood that the turbine will comprise a significant share of the U.S. small wind turbine market – projected market impact by 2015 in installed units
- Applicant's capability to manufacture and supply turbines for the U.S. market and to provide the associated installation and maintenance support

3. Other Selection Factors

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

1. Geographic diversity of projects.
2. Technological diversity of projects.
3. Cost share offered above the minimum amount required.
4. Turbine size diversity.

B. REVIEW AND SELECTION PROCESS

a. Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is at <http://www.management.energy.gov/documents/meritrev.pdf>.

It is very important that those documents, Project Abstract and Project Narrative file, that will be used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

b. Selection

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

c. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

DOE anticipates notifying applicants selected for award by **the end of April 2009** and making awards by **the end of September 2009**.

OTHER INFORMATION

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modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

C. COMMITMENT OF PUBLIC FUNDS

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

D. PROPRIETARY APPLICATION INFORMATION

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

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

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

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

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

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

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

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

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

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this 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.

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 reserves 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

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.

PART III – APPLICATION AND SUBMISSION INFORMATION (ALL TOPIC AREAS)

A. ADDRESS TO REQUEST APPLICATION PACKAGE

Application forms and instructions are available at Grants.gov. To access these materials, go to <http://www.grants.gov>, select “Apply for Grants,” and then select “Download Application Package.” Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package. (Also see Section H of this Part below.)

B. LETTER OF INTENT AND PRE-APPLICATION

1. Letter of Intent

Letters of Intent are not required.

2. Pre-application

A pre-application is not required.

C. CONTENT AND FORM OF APPLICATION

You must complete the mandatory forms and any applicable optional forms, in accordance with the instructions on the forms and the additional instructions below, as required by this FOA.

Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement. Grants.gov is currently phasing out the use of the PureEdge software and transitioning to using Adobe Reader software. DOE will not begin using the Adobe forms until January 2009. As the closing date and time for this FOA is after the DOE transition date, an application package using the Adobe forms will not be posted at time of FOA issuance. Once DOE has transitioned to the Adobe forms, an amendment to the FOA will be posted to provide the Adobe forms. The information requested in the FOA will not change with the use of the Adobe forms and does not preclude Applicants from working on the technical narrative and other required information identified in the FOA.

Note that Grants.gov requires Applicants to 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

Applicants submitting for multiple Topic Areas must provide separate, complete application packages for each Topic Area under which they wish to compete. Applications must be clearly marked by Topic Area.

SF 424 - Application for Federal Assistance

Complete this form first to populate data in other forms. Complete all required fields in accordance with the pop-up instructions on the form. **To activate the instructions, turn on the “Help Mode” (Icon with the pointer and question mark at the top of the form.)** Include the Topic Area with the descriptive title of the project in Block 15.

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.

Other Attachments Form

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

a. Project Summary/Abstract File

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects).

The project summary/abstract must specify the Topic Area and, if applicable, the Sub-Topic Area to which the project is applying. Applicants are cautioned that this document should not include any proprietary information, trade secrets, or other confidential business, financial or sensitive information, since this summary may be subject to public disclosure under the Freedom of Information Act (FOIA). The project summary must 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 11 point. Save this information in a file named “Summary.pdf,” and click on “Add Optional Other Attachment” to attach.

b. Project Narrative File - Mandatory Other Attachment

The project narrative must not exceed 20 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). EVALUATORS WILL REVIEW ONLY THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE. The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application. See Part II Section – Other Information, D (per respective Topic Area) for instructions on how to mark proprietary application information. Save the information in a single file named “Project.pdf,” and click on “Add Mandatory Other Attachment” to attach.

The project narrative must include:

- Project Objectives.
This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
- Merit Review Criterion Discussion.
This section should be formatted to address each of the merit review criterion and sub-criterion listed in Part II, APPLICATION REVIEW INFORMATION, SECTION A (of the respective Topic Area section). Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. DOE WILL

EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT ADDRESS SEPARATELY EACH OF THE MERIT REVIEW CRITERION AND SUB-CRITERION.

- **Project Timetable:**

This section should outline as a function of time, year by year, all the important activities or phases of the project, including any activities planned beyond the project period. Successful applicants must use this project timetable to report progress.

The above listed components of your Project Narrative combined, must be within the Narrative page limit specified above. Documents listed below may be included as clearly marked appendices to your Narrative and will not count towards the Project Narrative page limit. Please note that some of the required documents listed below may have their own page limits to which you must adhere.

c. Resume File

Provide a resume for each key person proposed, including subawardees and consultants if they meet the definition of key person. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. Save all resumes in a single file named “resume.pdf” and click on “Add Optional Other Attachment” to attach. Each resume must not exceed 2 pages when printed on 8.5” by 11” paper with 1 inch margins (top, bottom, left, and right) with font not smaller than 11 point and should include the following information, if applicable:

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

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

Publications. Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically.

Patents, copyrights and software systems developed may be provided in addition to or substituted for publications.

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

Of the key personnel identified in this file, indicate the Principal Investigator(s) (PI). If multiple PIs are proposed, the applicant must provide the information indicated in Part II, ELIGIBILITY INFORMATION, Section D. as part of this file.

The resume file does not have a page limitation.

d. Budget File

SF 424 A Excel, Budget Information – Non-Construction Programs File

You must provide a separate budget for each year of support requested and a cumulative budget for the total project period. All budget categories must include both the DOE and Applicant or third party cost share. Use the SF 424 A Excel, “Budget Information – Non Construction Programs” form on the Applicant and Recipient Page at

http://management.energy.gov/business_doe/business_forms.htm. You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART III, G.). Save the information in a single file named “SF424A.xls,” and click on “Add Optional Other Attachment” to attach.

e. Budget Justification File

A Budget Justification for SF 424A must be provided for the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget). Provide the name of your cognizant/oversight agency, if you have one, and the name and phone number of the individual responsible for negotiating your indirect rates as part of the budget justification or under the comments under the Indirect tab of the Budget Justification form. Save the information in a single file named “BudgetJustification.pdf,” and click on “Add Optional Other Attachment” to attach.

The Excel format provided as PMC 123.1, Budget Justification for SF 424A, at <https://www.eere-pmc.energy.gov/forms.aspx>, is recommended but not required for use in providing this budget justification.

f. Letters of Commitment

You must have a letter from each third party contributing cost sharing (i.e., a party other than the organization submitting the application) that proposes to provide all or part of the required cost sharing. **All Letters of Commitment must be attached to the Project Narrative File.** The letter must state that the third party is committed to providing a specific minimum dollar amount of cost sharing. In the budget justification, identify the following information for each third party contributing cost sharing: (1) the name of the organization; (2) the proposed dollar amount to be provided; (3) the amount as a percentage of the total project cost; and (4) the proposed cost sharing – cash, services, or property.

Letters of Commitment from parties participating in the project, exclusive of vendors, who will not be contributing cost share, but will be integral to the success of the project must be included as part of this Appendix to the Narrative. Letters of Commitment will not count towards the Project Narrative page limit.

g. Subaward Budget File(s)

You must provide a separate budget (i.e., budget for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than \$100,000 or 50 percent of the total work effort (whichever is less). Use the SF 424 A Excel for Non Construction Programs or the SF 424 C Excel for Construction Programs. These forms are found on the Applicant and Recipient Page at http://management.energy.gov/business_doe/business_forms.htm. Save each Subaward budget in a separate file. Use up to 10 letters of the subawardee's name (plus .xls) as the file name (e.g., ucla.xls or energyres.xls), and click on "Add Optional Other Attachment" to attach.

A budget justification for the subaward budget is also required. If the SF 424A budget format is used for the application, the format provided as PMC 123.1, Budget Justification for SF 424A, on the Applicant and Recipient Page at http://management.energy.gov/business_doe/business_forms.htm is recommended but not required for use in providing this budget justification. Save each Subaward budget justification in a separate file, using up to 5 letters of the subawardee's name (plus "budgetjustification", e.g. uclaBudgetJustification.pdf) as the file name and click on "Add Optional Other Attachment" to attach.

h. Budget for Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable

If a FFRDC contractor is to perform a portion of the work, you must provide a DOE Field Work Proposal in accordance with the requirements in DOE Order 412.1 Work Authorization System. This order and the DOE Field Work Proposal form are available at the following link:

<http://www.management.energy.gov/documents/o4121.pdf>. Use up to 10 letters of the FFRDC name (plus .pdf) as the file name (e.g., lanl.pdf or anl.pdf), and click on "Add Optional Other Attachment" to attach.

i. Authorization for non-DOE or DOE FFRDCs

Save the Authorization for non-DOE or DOE FFRDCs, as specified in Part III.C. Other Eligibility Requirements, in a single file named "FFRDC_Auth.pdf" and click on "Add Optional Other Attachment"

j. SF-LLL Disclosure of Lobbying Activities

Complete the SF- LLL. If not applicable, negative response is required.

Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the

grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying." Save this document in a single file named "SF-LLL.pdf" and click on "Add Attachments" in Field 11 to attach.

Summary of Required Forms/Files

Your application must include the following documents:

Name of Document	Format	File Name
SF 424 - Application for Federal Assistance	PDF	See Instructions
Other Attachments Form: Attach the following files to this form:	PDF	See Instructions
Project Summary/Abstract File	PDF	Summary.pdf
Project Narrative File, including required appendices (Letters of Commitment)	PDF	Project.pdf
Resume File	PDF	Resume.pdf
SF 424A Excel - Budget Information for Non-Construction Programs File	Excel	SF424A.xls
Budget Justification File (see instructions for format)	PDF	BudgetJustification.pdf
Subaward Budget File(s), if applicable	Excel	See Instructions
Budget for Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable.	PDF	See instructions
Authorization from cognizant Contracting Officer for FFRDC, if applicable.	PDF	FFRDC_Auth.pdf
SF-LLL Disclosure of Lobbying Activities	PDF	SF-LLL.pdf

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS

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

- Indirect cost information
- Other budget information
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Environmental Questionnaire

E. SUBMISSION DATES AND TIMES

Application Due Date

Applications must be received by March 03, 2009, 11:59 PM Eastern Time. You are encouraged to transmit your application well before the deadline. The Grants.gov Helpdesk is NOT available after 9:00 PM Eastern Time. **APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.**

F. INTERGOVERNMENTAL REVIEW

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

G. FUNDING RESTRICTIONS

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 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.

H. SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit

APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV, AGAINST THIS ANNOUNCEMENT, TO BE CONSIDERED FOR AWARD. 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 or send an email to support@grants.gov.

2. Registration Process Requirements

There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See

http://www.grants.gov/applicants/get_registered.jsp. Use the Grants.gov Organization Registration Checklist at <http://www.grants.gov/section3/OrganizationRegCheck.pdf> to guide you through the process. **IMPORTANT:** During the CCR registration process, you will be asked to designate an E-Business Point of Contact (EBIZ POC). The EBIZ POC must obtain a special password called "Marketing Partner Identification Number" (MPIN).

Applicants who are not registered with CCR and Grants.gov should allow at least 21 days to complete these requirements, as you must COMPLETE ALL STEPS of the one-time registration process before you can submit your first application through Grants.gov.

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

Microsoft Vista and Office 2007 Compatibility

Grants.gov is currently incompatible with both the new Microsoft (MS) Vista Operating System and the new Microsoft (MS) Office 2007 versions of Word, Excel, and Power Point. In order to create and submit your application to Grants.gov, you must find a computer with a previous version Microsoft Operating System, such as Windows XP.

If you attach a file created using MS Office 2007, you will not get an error message when you submit the application, HOWEVER, your entire application will not be able to be processed or accepted at Grants.gov and will not reach DOE. Grants.gov can accept applications with attachments created in MS Office 2007 if the attachments are saved in the prior format. See the

http://www.grants.gov/assets/Vista_and_office_07_Compatibility.pdf for detailed instructions on how to do this. A file created in MS Office 2007 can be identified by the "x" at the end of the file extension, for example "sample.docx" for a Word file. Contact Grants.gov at 1-800-518-4726 with any questions.

3. Questions

ALL Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Part VII, Section A. of this announcement explains how to submit other questions to the Department of Energy (DOE), relative to the content and requirements of this announcement.

4. Application Receipt Notices

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of five e-mails. It is extremely important that the AOR watch for and save each of the emails. It may take up to 2 business days from application submission to receipt of email Number 2. You will know that your application has reached DOE when the AOR receives email Number 5. You will need the Submission Receipt Number (email Number 1) to track a submission. The titles of the five e-mails are:

Number 1 - Grants.gov Submission Receipt Number

Number 2 - Grants.gov Submission Validation Receipt for Application Number
 Number 3 - Grants.gov Grantor Agency Retrieval Receipt for Application Number
 Number 4 - Grants.gov Agency Tracking Number Assignment for Application Number
 Number 5 - DOE e-Center Grant Application Received

The last email will contain instructions for the AOR to register with the DOE e-Center. If the AOR is already registered with the DOE e-Center, the title of the last email changes to: Number 5 – DOE e-Center Grant Application Received and Matched

This email will contain the direct link to the application in IIPS. The AOR will need to enter their DOE e-Center user id and password to access the application.

PART IV - AWARD ADMINISTRATION INFORMATION (ALL TOPIC AREAS)

A. AWARD NOTICES

1. Notice of Selection

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

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

2. Notice of Award

A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes, either as an attachment or by reference: 1. Special Terms and Conditions; 2. Applicable program regulations, if any; 3. Application as approved by DOE; 4. DOE assistance regulations at 10 CFR part 600, or, for Federal Demonstration Partnership (FDP) institutions, the FDP terms and conditions; 5. National Policy Assurances To Be Incorporated As Award Terms; 6. Budget Summary; and 7. Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

1. Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: <http://ecfr.gpoaccess.gov>), except for grants made to Federal Demonstration Partnership (FDP) institutions. The FDP terms and conditions and DOE FDP agency specific terms and conditions are located on the National Science Foundation web site at http://www.nsf.gov/awards/managing/fed_dem_part.jsp.

2. Special Terms and Conditions and National Policy Requirements

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative

Agreements are located at

<http://management.energy.gov/documents/SpecialTermsandConditions1207.pdf>. The National Policy Assurances To Be Incorporated As Award Terms are located at http://management.energy.gov/business_doe/1374.htm.

3. 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.

C. REPORTING

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. The proposed Checklist for this program can be found at https://www.eere-pmc.energy.gov/procurenet/FinancialAssistance/Forms/DOE_Forms/DOEF4600_2.doc.

PART V - QUESTIONS/AGENCY CONTACTS (ALL TOPIC AREAS)

A. QUESTIONS

Questions regarding the content of the announcement must be submitted through the “Submit Question” feature of the DOE Industry Interactive Procurement System (IIPS) at <http://e-center.doe.gov>. Locate the program announcement on IIPS and then click on the “Submit Question” button. Enter required information. You will receive an electronic notification that your question has been answered. 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. Potential applicants are encouraged to read all posted Q&A prior to posting a new question.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process are not answered via the DOE IIPS “submit question” feature, and must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. DOE cannot answer these questions. (See Part III, Section H.)

REFERENCE MATERIAL

Appendix A – Definitions

“Amendment” means a revision to a Funding Opportunity Announcement

"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. NOTE: Application is referred to as Proposal in IIPS.

“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, 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.

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

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

"Contracting Officer" means the DOE 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 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 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 DOE. The percentage of Applicant Cost Share is to be applied to the Total Project Cost (i.e., the sum of Applicant plus DOE Cost Shares) rather than to the DOE contribution alone.

“Central Contractor Registry (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 Grants.gov require that the organization first be registered in the CCR at <http://www.grants.gov/CCRRegister>.

“Credential Provider” is an organization that validates the electronic identity of an individual through electronic credentials, PINS, and passwords for Grants.gov. 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

“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 submit grant applications on behalf of their organization through Grants.gov.

“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. For DOE, it 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.

“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 DOE 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 and apply for competitive 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>

“Industry Interactive Procurement System (IIPS)” is DOE’s Internet-based procurement system which allows access to DOE’s business opportunities database, allows user registration and submittal of Applications: <http://e-center.doe.gov/>.

"Key Personnel" means 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 login to Grants.gov to assign privileges to the individual(s) authorized to submit applications 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).

"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 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 in IIPS meaning 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, is financially accountable for the use of any DOE funds or property provided for the performance of the Project, and is legally responsible for carrying out the terms and condition of the award.

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

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

"Substantial Involvement" means involvement on the part of the Government. DOE'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.

“Technology Investment Agreement (TIA)” is a new type of assistance instrument for DOE, but they have been used by the Department of Defense for many years to support or stimulate research projects involving for-profit firms, especially commercial firms that do business primarily in the commercial marketplace. TIAs are different from grants and cooperative agreements in that the award terms may vary from the Government-wide standard terms (See DOE TIA regulations at 10 CFR Part 603). The primary purposes for including a TIA in the type of available award instruments are to encourage non-traditional Government contractors to participate in an R&D program and to facilitate new relationships and business practices. A TIA can be particularly useful for awards to consortia (See 10 CFR 603.225(b) and 603.515, Qualification of a consortium).

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

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 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.

1. **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.
2. **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 – Cost Share Information

Cost Sharing DOE Financial Assistance Awards

The requirement for cost sharing included in Funding Opportunity Announcements (FOAs) issued competitively by the Department of Energy (DOE) is either statutory, programmatic, or both. Certain federal statutes require a minimum cost share requirement, by either type of activities funded or by Program. This is known as statutory cost share. Research and development (R&D) activities (other than R&D activities related to basic science) require Recipients (those receiving the financial assistance awards from DOE) to cost share at a minimum of 20% of total project costs. Demonstration and Commercial Application projects require Recipients to cost share at a minimum of 50% of total project costs.

The Program may, at its discretion, require a greater level of cost share than the statutory minimum, or require cost share when there is no minimum requirement, as it determines appropriate. This is called programmatic cost share.

Cost Sharing or Cost Matching

The terms “cost sharing” and “cost matching” are often used synonymously. Even the DOE Financial Assistance Regulations, 10 CFR Part 600, use both of the terms in the titles specific to regulations applicable to cost sharing. DOE almost always uses the term “cost sharing,” as it conveys the concept that **non-federal share is calculated as a percentage of the Total Project Cost**. An exception is the State Energy Program Regulation, 10 CFR Part 420.12, State Matching Contribution. Here “cost matching” for the non-federal share is calculated as a percentage of the federal funds only, rather than the Total Project Cost.

How Cost Sharing Is Calculated

As stated above, cost sharing is calculated as a percentage of the Total Project Cost. Following is an example of how to calculate cost sharing amounts for a project with \$1,000,000 in federal funds with a minimum 20% non-federal cost sharing requirement:

Formula: Federal share (\$) divided by Federal share (%) = Total Project Cost

Example: \$1,000,000 divided by 80% = \$1,250,000

Formula: Total Project Cost (\$) minus Federal share (\$) = Non-federal share (\$)

Example: \$1,250,000 minus \$1,000,000 = \$250,000

Formula: Non-federal share (\$) divided by Total Project Cost (\$) = Non-federal share (%)

Example: \$250,000 divided by \$1,250,000 = 20%

See the sample cost share calculation for a blended cost share percentage below. **Keep in mind that FFRDC funding is DOE funding.**

What Qualifies For Cost Sharing

While it is not possible to explain what specifically qualifies for cost sharing in one or even a couple of sentences, in general, if a cost is allowable under the cost principles applicable to the organization incurring the cost and is eligible for reimbursement under a DOE grant or cooperative agreement, then it is allowable as cost share. Conversely, if the cost is not allowable under the cost principles and not eligible for reimbursement, then it is not allowable as cost share. In addition, costs may not be

counted as cost share if they are paid by the Federal Government under another award unless authorized by Federal statute to be used for cost sharing.

The rules associated with what is allowable as cost share are specific to the type of organization that is receiving funds under the grant or cooperative agreement, though are generally the same for all types of entities. The specific rules applicable to:

- Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations are found at 10 CFR600.123;
- State and Local Governments are found at 10 CFR600.224;
- For-profit Organizations are found at 10 CFR600.313.

In addition to the regulations referenced above, other factors may also come into play such as timing of donations and length of the project period. For example, the value of ten years of donated maintenance on a project that has a project period of five years would not be fully allowable as cost share. Only the value for the five years of donated maintenance that corresponds to the project period is allowable and may be counted as cost share.

Additionally, DOE generally does not allow pre-award costs for either cost share or reimbursement when these costs precede the signing of the appropriation bill that funds the award. In the case of a competitive award, DOE generally does not allow pre-award costs prior to the signing of the Selection Statement by the DOE Selection Official.

Following is a link to the DOE Financial Assistance Regulations. You can click on the specific section for each Code of Federal Regulations reference mentioned above.

DOE Financial Assistance Regulations:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=98a996164312e8dcf0df9c22912852b0&rgn=div5&view=text&node=10:4.0.1.3.9&idno=10>

As stated above, the rules associated with what is allowable cost share are generally the same for all types of organizations. Following are the rules found to be common, but again, the specifics are contained in the regulations and cost principles specific to the type of entity:

(a) *Acceptable contributions.* All contributions, including cash contributions and third party in-kind contributions, must be accepted as part of the recipient's cost sharing if such contributions meet all of the following criteria:

- (1) They are verifiable from the recipient's records.
- (2) They are not included as contributions for any other federally-assisted project or program.
- (3) They are necessary and reasonable for proper and efficient accomplishment of project or program objectives.
- (4) They are allowable under the cost principles applicable to the type of entity incurring the cost as follows:

(A) *For-profit organizations.* Allowability of costs incurred by for-profit organizations and those nonprofit organizations listed in Attachment C to OMB Circular A-122 is determined in accordance with the for-profit costs principles in 48

CFR Part 31 in the Federal Acquisition Regulation, except that patent prosecution costs are not allowable unless specifically authorized in the award document.

(B) *Other types of organizations.* Allowability of costs incurred by other types of organizations that may be subrecipients under a prime award is determined as follows:

(i) *Institutions of higher education.* Allowability is determined in accordance with OMB Circular No. A-21 -- Cost Principles for Educational Institutions

(ii) *Other nonprofit organizations.* Allowability is determined in accordance with OMB Circular A-122, Cost Principles for Non-Profit Organizations

(iii) *Hospitals.* Allowability is determined in accordance with the provisions of 45 CFR Part 74, Appendix E, Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals

(iv) *Governmental organizations.* Allowability for State, local, or federally recognized Indian tribal government is determined in accordance with OMB Circular No. A-87, Cost Principles for State, Local, and Indian Tribal Governments

(5) They are not paid by the Federal Government under another award unless authorized by Federal statute to be used for cost sharing or matching.

(6) They are provided for in the approved budget.

(b) *Valuing and documenting contributions*

(1) *Valuing recipient's property or services of recipient's employees.* Values are established in accordance with the applicable cost principles, which means that amounts chargeable to the project are determined on the basis of costs incurred. For real property or equipment used on the project, the cost principles authorize depreciation or use charges. The full value of the item may be applied when the item will be consumed in the performance of the award or fully depreciated by the end of the award. In cases where the full value of a donated capital asset is to be applied as cost sharing or matching, that full value must be the lesser or the following:

(A) The certified value of the remaining life of the property recorded in the recipient's accounting records at the time of donation; or

(B) The current fair market value. If there is sufficient justification, the contracting officer may approve the use of the current fair market value of the donated property, even if it exceeds the certified value at the time of donation to the project. The contracting officer may accept the use of any reasonable basis for determining the fair market value of the property.

(2) *Valuing services of others' employees.* If an employer other than the recipient furnishes the services of an employee, those services are valued at the employee's regular rate of pay, provided these services are for the same skill level for which the employee is normally paid. Fringe and overhead expenses on others' employee services are treated differently depending on the type of organization. No fringe or overhead is allowed for State and Local Governments, fringe and overhead are allowed for For-profit Organizations, and fringe but no overhead is allowed for Universities, Non-profits, and Hospitals.

(3) *Valuing volunteer services.* Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as cost sharing or matching if the service is an integral and necessary part of an approved project or program. Rates for volunteer services must be consistent with those paid for similar work in the recipient's organization. In those markets in which the required skills are not found in the recipient organization, rates must be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

(4) *Valuing property donated by third parties.*

(A) Donated supplies may include such items as office supplies or laboratory supplies. Value assessed to donated supplies included in the cost sharing or matching share must be reasonable and must not exceed the fair market value of the property at the time of the donation.

(B) Normally only depreciation or use charges for equipment and buildings may be applied. However, the fair rental charges for land and the full value of equipment or other capital assets may be allowed, when they will be consumed in the performance of the award or fully depreciated by the end of the award, provided that the contracting officer has approved the charges. When use charges are applied, values must be determined in accordance with the usual accounting policies of the recipient, with the following qualifications:

(i) The value of donated space must not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.

(ii) The value of loaned equipment must not exceed its fair rental value.

(5) *Documentation.* The following requirements pertain to the recipient's supporting records for in-kind contributions from third parties:

(A) Volunteer services must be documented and, to the extent feasible, supported by the same methods used by the recipient for its own employees.

(B) The basis for determining the valuation for personal services and property must be documented.