



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

DE-FOA-0000847  
Amendment No. 001

DATE: August 8, 2013  
FROM: Laura Merrick, Contracting Officer  
TO: All Prospective Applicants

SUBJECT: Amendment No. 001 to Funding Opportunity Announcement (FOA)  
DE-FOA-0000847, "Marine and Hydrokinetic (Wave) Testing Infrastructure Development."

- I. The purpose of this amendment is to:
  1. Amend the FOA to extend the application due date by two weeks to now close on 8/27/2013 at 5:00PM Eastern Time.
- II. All other parts of the Funding Opportunity Announcement remain unchanged.
- III. All edits are highlighted in yellow to clearly call attention to the revisions that have been made.

**FINANCIAL ASSISTANCE  
FUNDING OPPORTUNITY ANNOUNCEMENT**



**U.S. Department of Energy  
Energy Efficiency and Renewable Energy  
Golden Field Office**

**Marine and Hydrokinetic (Wave) Testing Infrastructure Development**

**Funding Opportunity Announcement Number: DE-FOA-0000847**

**Announcement Type: Amendment 001**

**CFDA Number: 81.087**

**Issue Date: 07/03/2013**

**Letter of Intent Due Date\*: 07/26/2013, 5:00 PM Eastern Time**

**Application Due Date: 08/27/2013, 5:00 PM Eastern Time**

\*Letters of intent are requested, though not required to be eligible for an award.

## REGISTRATION REQUIREMENTS

There are several one-time actions before submitting an Application in response to this Funding Opportunity Announcement (FOA), as follows:

- Register and create an account on EERE Exchange at <https://eere-exchange.energy.gov/>. This account will then allow the user to register for any open EERE FOAs that are currently in EERE Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission.

The applicant will receive an automated response when the Application is received. This will serve as a confirmation of receipt. Please do not reply to the automated response. The applicant will have the opportunity to re-submit a revised Application for any reason as long as the relevant submission is submitted by the specified deadline. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements is found at <https://eere-exchange.energy.gov/Manuals.aspx>.

The EERE Exchange registration does not have a delay; however, the remaining **registration requirements below could take several weeks to process and are necessary in order for a potential applicant to receive an award under this announcement**. Therefore, although not required in order to submit an Application through the EERE Exchange site, **all potential applicants lacking a DUNS number, or not yet registered with SAM or FedConnect should complete those registrations as soon as possible**.

Questions related to the registration process and use of the EERE Exchange website should be submitted to: [EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov)

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>
- Register with the System for Award Management (SAM) at <https://www.sam.gov>. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually.
- Register in FedConnect at <https://www.fedconnect.net/>. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at [https://www.fedconnect.net/FedConnect/PublicPages/FedConnect\\_Ready\\_Set\\_Go.pdf](https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf)
- Register in Grants.gov to receive automatic updates when Amendments to this FOA are posted. However, please note that applications and letters of intent will not be accepted through Grants.gov. <http://www.grants.gov/>

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## **SECTION I – FUNDING OPPORTUNITY DESCRIPTION**

### **A. Description**

#### **Background**

The statutory authority for this program activity is the Energy Independence and Security Act of 2007, section 633(a). The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: <http://ecfr.gpoaccess.gov>).

The mission of the Department of Energy (DOE) Wind and Water Power Technologies Office (WWPTO) is to research, test, and develop innovative technologies capable of generating renewable, environmentally responsible, and cost-effective electricity from U.S. water resources. These include marine and hydrokinetic (MHK) technologies that harness the energy from waves and ocean/tidal/river currents. DOE investments in these technologies aim to advance the technical readiness of MHK systems and support the development of a robust and competitive MHK industry in the United States. The Water Power Program's overarching MHK goal is to support the development and deployment of innovative MHK systems that with continued investment have the potential to be cost competitive with other forms of electricity generation.

Studies recently completed by DOE show that the maximum theoretical electric generation that could be produced from U.S. waves and tidal currents alone is approximately 1,420 terawatt-hours per year (TWh/yr) - more than a third of the nation's annual electricity usage. Of this amount, the total recoverable wave resource is estimated to be 1,170 TWh/yr along the outer continental shelf of the United States. Because of its comparable magnitude, the Technology Office is primarily focusing on wave energy as the core of its near-term strategic investments.

The global MHK industry is relatively nascent, and although some innovative wave energy designs have progressed towards commercial readiness (Technology Readiness Level [TRL] 9), none of these designs are yet optimized nor are they able to compete with other traditional forms of electricity generation. There is tremendous innovation currently taking place within the U.S. MHK industry sector. To accelerate the development of this important domestic renewable energy resource, continued investment in research and development, including the development of supporting national test infrastructure, will be necessary.

With regard to the critical role of test facilities in accelerating the emerging MHK energy industry, a direct comparison can be made to the Department of Energy's experience in wind energy. Test facilities played a critical role in testing wind turbine designs and developing wind turbine design codes and standards prior to large scale deployment. Having a similar testing infrastructure will be a key enabler of a successful MHK industry. MHK infrastructure must be available to test designs across the span of technology readiness levels, and needs to include open-water test berths. Affordable access to world-class test facilities for emerging wave energy components and systems directly accelerates development and deployment of U.S. technologies by: 1) reducing technical and financial risks, 2) reducing the cost of testing for individual developers and the industry as a whole, and 3) reducing the time-to-market of commercially-ready systems.

A U.S. testing infrastructure directly reduces time-to-market for wave energy devices. It accelerates TRL progression by enabling the use of an incremental testing approach that reduces the likelihood of large technology development setbacks. In addition, availability of a testing infrastructure reduces development time by providing pre-permitted open-water facilities and ready access to the electrical grid. A U.S. MHK testing infrastructure also indirectly accelerates TRL progression by supporting ancillary MHK activities. Examples of these activities include facilitating innovation, developing international technical standards, developing knowledge centers and business corridors, and validating reference models, analysis tools, and simulation codes. In order to develop a robust and comprehensive testing infrastructure capable of achieving the above mentioned goals, the Program will solicit applications for an open-water, fully energetic wave test facility design.

**Topic Area Information: “Open Water, Fully Energetic Wave Test Facility”**

To potentially support the full-scale testing of MHK wave energy devices, the Water Power Program intends to evaluate site locations, designs, and estimated costs for an open water, fully energetic domestic wave test facility. It is expected that a viable grid-connected facility will be capable of testing both scaled prototypes and full-scale (utility-scale) wave energy conversion devices in order to evolve reliable, low cost, renewable energy alternatives to fossil fuel. Prototype testing is essential to mature existing wave technologies, validate performance against analytic models, demonstrate compliance with applicable design standards and thereby mitigate the technical and financial risk of developing and deploying mass-produced wave energy devices, plants, technologies and related products. Construction and operation of a full-scale domestic wave test facility will assist the U.S. industry by identifying design and manufacturing deficiencies early in the development cycle and validate modifications and improvements prior to commercial deployment. Ultimately, this new testing capability will improve the country’s competitiveness in MHK energy technology, encourage domestic manufacturing, job creation, and provide a new technology that utilizes an untapped renewable resource to help achieve the nation’s energy goals.

This FOA is intended to identify possible site locations and evaluate the potential to establish a national wave testing facility within U.S. territorial waters. Project activities under this FOA include:

- 1) identified options for a national test site meeting the resource and testing criteria necessary to test full scale wave generation devices (specific minimum wave resource and facility support requirements are identified in the “Minimum Resource & Infrastructure Requirements” section below as well as in the Merit Review Criterion section of this FOA, Section V),
- 2) development of a preliminary facility design,
- 3) estimated cost and schedule for site development and facility construction,
- 4) estimated annual facility operating and maintenance cost, and
- 5) estimated testing fees required for full facility cost recovery inclusive of facility operation, maintenance, and test support based on a semi-annual lease of individual testing berths.

Prior to the conclusion of the project, selected applicants will deliver to DOE a report which at a minimum details the following information:

- Existing site conditions: Characterization and analysis of the existing site conditions that may be relevant to project design (for example, wave resource, bottom type, water depth)

- Preliminary design alternatives: An identification, description, and evaluation of design alternatives that were considered for achieving the project goals and objectives.
- Preferred alternative: A description of a preferred alternative and the rationale for choosing it, citing the relevant factors described above. Include a brief explanation of why the other alternative(s) were not selected.
- Design considerations and preliminary analyses: A listing of specific design criteria that defines the intent and expectations for each project element.
- Permitting and stakeholder consultation: A description of regulatory and/or other public consultation activities that may have been carried out and how the review comments from agencies and other stakeholders were addressed in the preliminary design.
- Preliminary design drawings depicting all elements of the project in sufficient detail to support project permitting, including at a minimum:
  - Existing site showing: area/location map; boundaries; hazards, roads, port facilities, utilities, or other infrastructure as appropriate;
  - Project site plan drawing(s) showing proposed actions overlaid on the existing site plan;
  - Structure design details, as needed.
- Construction quantities and preliminary construction cost estimate.
- Operating, maintenance, and testing fee cost estimates

The proposed facility can be new construction or involve the design and modification of an existing facility. Infrastructure available for transporting, handling, installing, and servicing components and equipment, as well as proximity to a grid connection, should be factors in site selection. It is envisioned that the facility will have access to sufficient office space for permanent staff and visiting users as well as conference rooms, lunch room, restrooms, computer stations, etc. The proposed site should also have access to spaces for assembly, disassembly and system check-out of test articles prior to testing. A dockside, or equivalent location, should be included to confirm proper functionality of sensors and instrumentation, seals, etc. before testing.

Each application must include organizational participants from a state(s) or university(ies) and at least one DOE National Laboratory. The site location is restricted to the United States and its Territories. The minimum required cost share for this FOA is 20 percent. Cost share above the minimum will be a program policy factor considered in the selection of applications. Applicants must demonstrate capabilities and experience in 1) MHK technology development and testing, 2) business management and operation of marine-based industrial facilities, and 3) site selection and permitting processes.

**DOE anticipates selecting two (2) awardees under this FOA. Subject to future appropriations and Program priorities, DOE anticipates that an additional FOA will be issued in the future with the objective of building and commissioning one (1) Open Water, Fully Energetic Wave Testing Facility.**



**Minimum Resource & Infrastructure Requirements**

Any proposed test site and accompanying facility support infrastructure must meet or exceed the following resource and infrastructure support requirements.

Site Location & Resource Requirements:

- Located in U.S. territorial waters
- Test berths subject to a full (unprotected) oceanic wave regimes
- Wave annual average power density  $\geq 30$  kW/m
- Testing berth water depths  $\geq 50$ m

Site Capacity:

- A minimum of four (4) testing berths and sufficient infrastructure and support capacity to accommodate simultaneous testing of four (4) wave generation devices
- Rated test capacity of each berth to accommodate generation devices up to 1 MW
- Access & approval for grid interconnection with sufficient line capacity to operate all testing berths simultaneously at rated power

**Table 1 - FOA Summary**

<b>Topic Area</b>	<b>Period of Performance</b>	<b>Expected Number of Awards</b>	<b>Total Estimated Federal Funding*</b>	<b>Estimated FY13 Federal Funding*</b>	<b>Estimated Range per Award (Total Federal Funding)*</b>	<b>Required Cost Share</b>
Open Water, Fully Energetic Wave Test Facility	Up to 12 Months	2	\$1,500,000	\$1,500,000	\$250,000 - \$750,000	20%

**\*Federal funding is subject to annual appropriations. All figures above should be treated as estimates. DOE also reserves the right to adjust the number of awards (and funding levels) to meet program goals and objectives.**

## **SECTION II – AWARD INFORMATION**

### **A. Type of Award Instrument**

- DOE anticipates awarding grants under this funding opportunity announcement.

### **B. Estimated Funding**

- Approximately \$ 1,500,000 is expected to be available for new awards under this announcement.

### **C. Maximum and Minimum Award Amount**

- 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

### **D. Expected Number of Awards**

- Under this announcement, DOE expects to make two (2) awards.

### **E. Period of Performance**

- DOE anticipates making awards that will run for up to 12 months.

### **F. Type of Application**

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

### **G. Environmental Review in Accordance with National Environmental Policy Action (NEPA)**

The federal funds distributed under this FOA are subject to the National Environmental Policy Act, 42 U.S.C. §§ 4321 et seq. (NEPA). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website, at <http://nepa.energy.gov/>.

While NEPA compliance is a federal agency responsibility and the ultimate decisions remain with the federal agency, all projects selected for an award will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their proposed project.

### **H. Performance of Work in the United States**

EERE strongly encourages interdisciplinary and cross-sectoral collaboration spanning organizational and national boundaries. Such collaboration enables the achievement of scientific and technological outcomes that were previously viewed as extremely difficult, if not impossible.

EERE requires all work under EERE funding agreements to be performed in the United States – i.e., prime recipients must expend 100% of the total project cost in the United States.

Applicants and prime recipients may request a waiver of this requirement. Applicants must include a written waiver request in the Full Application. Prime recipients must submit any waiver requests in writing to the assigned DOE Contracting Officer. The DOE Contracting Officer has discretion to waive this requirement if he/she determines that it will further the purposes of this FOA and is otherwise in the interests of EERE. See Section IV.C.12 of the FOA for waiver request information.

## **SECTION III - ELIGIBILITY INFORMATION**

### **A. Eligible Applicants**

#### **1. Individuals**

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

#### **2. Domestic Entities**

For-profit entities, educational institutions, and nonprofits<sup>1</sup> that are incorporated (or otherwise formed) under the laws of a particular State or territory of the United States are eligible to apply for funding as a prime recipient or subrecipient.

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

DOE/NNSA Federally Funded Research and Development Centers (FFRDCs) and DOE Government-Operated Government-Owned laboratories (GOGOs) are eligible to apply for funding as a prime recipient or subrecipient.

Non-DOE/NNSA FFRDCs and non-DOE GOGOs are eligible to apply for funding as a subrecipient, but are not eligible to apply as a prime recipient.

Federal agencies and instrumentalities (other than DOE) are eligible to apply for funding as a subrecipient, but are not eligible to apply as a prime recipient.

#### **3. Foreign Entities**

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

Other than as provided in the “Individuals” or “Domestic Entities” sections above, all prime

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<sup>1</sup>Nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995, are not eligible to apply for funding.

recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. If a foreign entity applies for funding as a prime recipient, it must designate in the Full Application a subsidiary or affiliate incorporated (or otherwise formed) under the laws of a State or territory of the United States to be the prime recipient. The Full Application must state the nature of the corporate relationship between the foreign entity and domestic subsidiary or affiliate. Foreign entities may request a waiver of this requirement in the Full Application. See Section IV.C.12 for waiver request information. The DOE Contracting Officer has discretion to waive this requirement if he/she determines that it will further the purposes of this FOA and is otherwise in the interests of EERE.

A foreign entity may receive funding as a subrecipient.

#### **4. Incorporated Consortia**

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

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

#### **5. Unincorporated Consortia**

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

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

- Management structure;
- Method of making payments to consortium members;
- Means of ensuring and overseeing members' efforts on the project;

- Provisions for members' cost sharing contributions; and
- Provisions for ownership and rights in intellectual property developed previously or under the agreement.

## **B. Cost Sharing**

- The Cost Share must be at least 20% of the total allowable costs 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. (See 10 CFR Part 600 for the applicable cost sharing requirements.)

## **C. Other Eligibility Requirements**

### **DOE National Laboratory Contractors and Other Federally Funded Research and Development Center (FFRDC) Contractors**

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

The following wording is acceptable for the authorization:

“Authorization is granted for the \_\_\_\_\_ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the missions of the laboratory, will not adversely impact execution of the DOE assigned programs at the laboratory.

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

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

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

“Authorization is granted for the \_\_\_\_\_ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the

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

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 (FWP) and other FFRDC contractors through an interagency agreement with the sponsoring agency. FWP and other documents will be requested from successful applicants during award negotiation.

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.

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. Questions Regarding Eligibility**

DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The decision whether to submit an application in response to this FOA lies solely with the applicant.

## **SECTION IV – APPLICATION AND SUBMISSION INFORMATION**

### **A. Address to Request Application Forms**

The Application forms and instructions are available on EERE Exchange. To access these materials, go to <https://eere-exchange.energy.gov/> and select the appropriate funding opportunity number.

**Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect.**

*(e.g. ControlNumber\_LeadOrganization\_Project\_Part\_1, Part\_2, etc.)*

### **B. Letter of Intent, Pre-Application, and Concept Paper**

#### **1. Letter of Intent Requested**

Applicants are requested to submit a Letter of Intent by 07/26/2013, 5:00 PM Eastern Time. This letter should include the name of the applicant, the title of the project, the name of the Project Director/Principal Investigator(s), the amount of funds requested, and a one-page abstract. Letters of intent and accompanying abstracts will be used by DOE to organize and expedite the merit review process. They should not contain any proprietary or sensitive business information. Failure to submit such letters will not negatively affect a responsive application submitted in a timely fashion. Letters of intent should be submitted to [Testing\\_Infrastructure\\_FOA@go.doe.gov](mailto:Testing_Infrastructure_FOA@go.doe.gov). DOE will not respond to the Letter of Intent.

#### **2. Pre-application**

- A pre-application is not required.

#### **3. Concept Paper**

- A concept paper is not required

### **C. Content and Form of Application**

You must complete the following application forms found on the EERE Exchange website at <https://eere-exchange.energy.gov/>, in accordance with the instructions. **Applicants will receive a Control Number once they “Apply to this FOA” on the EERE Exchange website and should include the Control Number in the file name, as indicated below.**

#### **1. SF-424 – Application for Federal Assistance**

Complete all required fields in accordance with the instructions on the form. The list of certifications and assurances in Field 21 can be found at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>, under Certifications and Assurances. Note: The dates and dollar amounts on the SF 424 are for the complete project period and not just the first year, first phase or other subset of the project period. Save the information in a single file titled “ControlNumber\_LeadOrganization\_App424”.



## 2. Project Summary/Abstract File

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information, as the Department may make it available to the public if an award is made. 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), single spaced, with font not smaller than 11 point. Save the information in a single file titled "ControlNumber\_LeadOrganization\_Summary".

## 3. Project Narrative File

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), single spaced. 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 Section VIII.D for instructions on how to mark proprietary application information. Save the information in a single file titled "ControlNumber\_LeadOrganization\_Project".

**Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect. (e.g. ControlNumber\_LeadOrganization\_Project\_Part\_1, Part\_2, etc.)**

The project narrative must include:

### 1. Project Objectives.

This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.

### 2. Merit Review Criterion Discussion.

This section should be formatted to address each merit review criterion and sub-criterion listed in Part V. A. below. 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 SEPARATELY ADDRESS EACH MERIT REVIEW CRITERION AND SUB-CRITERION.

### 3. 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.

4. Roles of Participants:

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

5. Facilities and Other Resources:

Identify the facilities (e.g., office, laboratory, computer, etc.) to be used at each performance site listed, and, if appropriate, indicate their capacities pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Provide any information describing the other resources available to the project, such as machine and electronics shops.

6. Equipment:

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

7. Bibliography and References, if applicable:

Provide a bibliography for any references cited in the Project Narrative section. This section must include only bibliographic citations.

All the components of your Project Narrative must be within the Narrative page limit specified in paragraph 3. 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.

4. **Resume File**

Provide a resume for each key person proposed, including subawardees and consultants if they meet the definition of a key person. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. The biographical information for each resume must not exceed 2 pages when printed on 8.5” by 11” paper with 1 inch margins (top, bottom, left, and right), single spaced, with font not smaller than 11 point and should include the information below, if applicable. Save the information in a file titled “ControlNumber\_LeadOrganization\_Resume”.

**Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect.**

*(e.g. ControlNumber\_LeadOrganization\_Project\_Part\_1, Part\_2, etc.)*

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(s)).
- For Multiple Principal Investigators:

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

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

The resume file does not have a page limitation.

#### **5. SF 424 A Excel, Budget Information – Non-Construction Programs File**

You must provide a separate budget for each year of support requested and a cumulative budget for the total project period. Use the SF 424 A Excel, “Budget Information – Non Construction Programs” form on the DOE Financial Assistance Forms Page at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>. The SF424A provides columns for each individual budget-year as well as the commulative project-budget.

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 Section IV, G). Save the information in a single file

titled “ControlNumber\_LeadOrganization\_SF424A”.

**6. PMC 123.1 Budget Justification File**

You must justify the costs proposed in each Object Class Category/Cost Classification category using the PMC 123.1 Budget Justification File. The total project cost, including cost share (if applicable) and federal funding, must be represented in this document.

Save the budget justification information in a single file titled “ControlNumber\_LeadOrganization\_Budget”.

**7. Letters of Commitment**

If cost share is required, you must have a letter from each third party contributing cost share (i.e., a party other than the organization submitting the application) stating that the third party is committed to providing a specific minimum dollar amount of cost share. **All Letters of Commitment must be attached as an Appendix to the Project Narrative File.** Identify the following information for each third party contributing cost share: (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 type of cost share – 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.

**8. 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). The SF424A provides columns for each individual budget-year as well as the cumulative project-budget. The total project cost, including cost share (if applicable) and Federal funding, must be represented in this document. Use the SF 424 A Excel for Non Construction Programs or the SF 424 C Excel for Construction Programs. This form is found on the DOE Financial Assistance Forms Page at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>. Save each Subaward budget in a single file titled “ControlNumber\_LeadOrganization\_Subawardee\_SF424A”.

A PMC 123.1 Budget Justification file for the subaward budget is also required 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). The budget justification must include the same justification information described in Paragraph 6 above. Save each Subaward budget justification in a single file titled

“ControlNumber\_LeadOrganization\_Subawardee\_Budget”.

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

If a DOE FFRDC contractor is to perform a portion of the work, you must provide a DOE Field Work Proposal (FWP) in accordance with the requirements in DOE Order 412.1 Work Authorization System. The DOE Order 412.1, Work Authorization System and the DOE O

412.1, Field Work Proposal form are available at the following link, under “DOE Budget Forms”: <https://www.directives.doe.gov/directives/current-directives/412.1-BOrder-a/view>. Save the Field Work Proposal in a single file titled “ControlNumber\_LeadOrganization\_FFRDC\_FWP”.

**10. Authorization for non-DOE or DOE FFRDCs**

Save the Authorization for non-DOE or DOE FFRDCs, as specified in Section III.C. Other Eligibility Requirements, in a single file titled “ControlNumber\_LeadOrganization\_FFRDC\_Auth”.

**11. SF-LLL Disclosure of Lobbying Activities**

If applicable, complete the SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying." If applicable, save the SF-LLL in a single file titled “ControlNumber\_LeadOrganization\_SF LLL”.

**12. Waiver Request- (a) Foreign Entities and (b) Performance of Work in the United States (If Applicable)**

As set forth in Section III, all prime recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. If a foreign entity applies for funding as a prime recipient, it must designate in the Full Application a subsidiary or affiliate incorporated (or otherwise formed) under the laws of a State or territory of the United States to be the prime recipient. Section III further requires that all work under EERE funding agreements to be performed in the United States – i.e., prime recipients must expend 100% of the total project cost in the United States.

To seek a waiver of either requirement, the Applicant must submit a waiver request in the Full Application, which includes the following information: entity name, country (or state) of incorporation, description of the work to be performed by that entity, and the location where the work will be performed. If the applicant is seeking a waiver to have a foreign entity serve as the prime recipient, the applicant must explain why it is necessary to have a foreign entity serve as the prime recipient. If the applicant is seeking a waiver of the “Performance of Work in the United States” requirement, the applicant must explain why it is necessary to have the work performed outside of the United States. All waiver requests should explain how the waiver would further the purposes of this FOA and otherwise serve the interests of EERE. The Contracting Officer may require additional information before considering the waiver request. Save the Waiver Request(s) in a single file titled “ControlNumber\_LeadOrganization\_Institution\_Waiver”.

**Summary of Required Forms/Files**  
Your application must include the following documents:

Name of Document	Format	File Name
SF 424 - Application for Federal Assistance	Part of Adobe Application Package	ControlNumber_Lead Organization_App424
Project Summary/Abstract File	PDF	ControlNumber_Lead Organization_Summary
Project Narrative File, including required appendices (i.e. Letters of Commitment)	PDF	ControlNumber_Lead Organization_Project
Resume File	PDF	ControlNumber_Lead Organization_Resume
SF 424A Excel – Budget Information for Non-Construction Programs File	Excel  Excel	ControlNumber_Lead Organization_SF424A  ControlNumber_Lead Organization_SF424C
PMC 123.1 Budget Justification File	Excel	ControlNumber_Lead Organization_Budget
SF-424A Subaward Budget File(s), if applicable	Excel	ControlNumber_Lead Organization_Subaward_SF424A
PMC 123.1 Subaward Budget Justification(s), if applicable	Excel	ControlNumber_Lead Organization_Subaward_Budget
Budget for Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable.	PDF	ControlNumber_Lead Organization_FFRDC_FWP
Authorization from cognizant Contracting Officer for FFRDC, if applicable.	PDF	ControlNumber_Lead Organization_FFRDC_Auth

SF-LLL Disclosure of Lobbying Activities, if applicable	PDF	ControlNumber_Lead Organization_SF LLL
Waiver Request: Foreign Entities and / or Performance of Work in the United States, if applicable	PDF	ControlNumber_LeadOrganization_Institution_Waiver

#### D. Submissions from Successful Applicants

If 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)
- Representation of Limited Rights Data and Restricted Software, if applicable
- Environmental Questionnaire

#### E. Submission Dates and Times

##### 1. Letter of Intent Due Date

Letters of intent are requested by 07/26/2013, not later than **5:00 PM Eastern Time**. You are encouraged to transmit the Letter of Intent well before the deadline. Letters of intent should be submitted to [Testing\\_Infrastructure\\_FOA@go.doe.gov](mailto:Testing_Infrastructure_FOA@go.doe.gov).

##### 2. Pre-application Due Date

- Pre-applications are not required.

##### 3. Application Due Date

Applications must be received by **08/27/2013**, not later than **5:00 PM Eastern Time**. You are encouraged to transmit your application well before the deadline. **APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.**

#### F. Intergovernmental Review

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

#### G. Funding Restrictions

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

budget authority.

**Cost Principles.** Costs must be allowable in accordance with the applicable Federal cost principles referenced in: 2 CFR 220 for Educational Institutions; 2 CFR 225 for State, Local, and Indian Tribal Governments; 2 CFR 230 for Non Profit Organizations and FAR Part 31 for commercial organizations.

**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 and no earlier than the selection date, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. Recipients must obtain the prior approval of the Contracting Officer for any pre-award costs that are for periods greater than this 90 day calendar period.

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

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

## **H. Submission and Registration Requirements**

### **1. Where to Submit**

#### **APPLICATIONS MUST BE SUBMITTED UNDER THIS ANNOUNCEMENT THROUGH EERE EXCHANGE at**

**<https://eere-exchange.energy.gov/> TO BE CONSIDERED FOR AWARD.** You cannot submit an application through EERE Exchange unless you are registered. Please read the registration requirements below carefully and start the process immediately. Letters of Intent and/or Applications submitted by any other means will not be accepted.

If you have problems completing the registration process or submitting your application, send an email to the EERE Exchange helpdesk at [EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov). It is the responsibility of the applicant to verify successful transmission, prior to the Application due date and time.

### **2. Registration Process Requirements**

There are several one-time actions that must be completed before submitting an Application in response to this Funding Opportunity Announcement (FOA), as follows:

- Register and create an account on EERE Exchange at: <https://eere-exchange.energy.gov/>. This account will then allow the user to register for any open EERE FOAs that are currently in Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the appropriate contact point for each submission.



The applicant will receive an automated response when the Letter of Intent or Application is received. This will serve as a confirmation of receipt. Please do not reply to the automated response. The applicant will have the opportunity to re-submit a revised Letter of Intent or Application for any reason as long as the relevant submission is submitted by the specified deadline. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements is found at <https://eere-exchange.energy.gov/Manuals.aspx>.

The EERE Exchange registration does not have a delay; however, the remaining **registration requirements below could take several weeks to process and are necessary in order for a potential applicant to receive an award under this announcement.** Therefore, although not required in order to submit an Application through the EERE Exchange site, **all potential applicants lacking a DUNS number, or not yet registered with SAM or FedConnect should complete those registrations as soon as possible.**

Questions related to the registration process and use of the EERE Exchange website should be submitted to: [EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov)

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>
- Register with the System for Award Management (SAM) at: <https://www.sam.gov>. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually.
- Register in FedConnect at <https://www.fedconnect.net/>. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at [https://www.fedconnect.net/FedConnect/PublicPages/FedConnect\\_Ready\\_Set\\_Go.pdf](https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf)
- Register in Grants.gov to receive automatic updates when Amendments to this FOA are posted. However, please note that applications will not be accepted through Grants.gov. <http://www.grants.gov/>

### **3. Electronic Authorization of Applications and Award Documents**

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

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

## SECTION V - APPLICATION REVIEW INFORMATION

### A. Criteria

#### 1. Initial Review Criteria

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

#### 2. Merit Review Criteria

Applications will be evaluated against the merit review criteria shown below. For each criterion, the weighting (out of a total of 100%) is indicated to show its relative importance. The four merit review criteria are individually weighted as a percentage of the total score in the evaluation as indicated below. The sub-criteria under each of the four main criteria are not individually weighted.

##### **Criterion I: Technical Merit**

**Weight: [45%]**

- Likelihood that site evaluation and validation methodology will ensure minimum resource and infrastructure requirements are achievable.
- Likelihood that site evaluation and validation methodology will ensure the feasibility of complete testing and performance validation of full-scale wave energy devices including:
  - Accessibility “windows” for device deployment, removal, maintenance
  - Site and test resource condition monitoring
  - Performance validation & power performance matrices
  - Endurance testing
  - Structural testing
  - Survivability test & validation
  - Environmental effects monitoring and assessments
- Likelihood of achieving compliance with International performance and design testing standards.
- Likelihood of achieving community acceptance.
- Demonstrated ability to evaluate logistical infrastructure needs and availability to accommodate:
  - Test article preparation including engineering performance instrumentation installation
  - Test article deployment & removal
  - Transportation logistics, material handling, and supporting infrastructure capacity to simultaneously test multiple wave energy converter devices

- Demonstrated understanding of the environmental site conditions at proposed locations, including marine spatial planning and capability to obtain the necessary environmental permits.

**Criterion II: Technical Approach/Plan**

**Weight: [25%]**

- Degree to which the applicant demonstrates that the approach will deliver a suitable site location, preliminary engineering design, cost estimate, and schedule for the proposed test site.
- Clarity, adequacy and completeness of the project plan, including schedule, decision points and deliverables.
- Degree to which the proposed scope is commensurate with the budget, including the adequacy and completeness of the proposed tasks.

**Criterion III: Schedule and Scheduling Factors**

**Weight: [15%]**

- The thoroughness and feasibility of the overall project and schedule, including the clarity, adequacy and timing of major milestones.
- The degree to which documented progress has already been made in siting, permitting, approval processes, environmental compliance, grid connection (if applicable) and public acceptance, including evidence that the responsible Federal, State, and local Authorities Having Jurisdiction (AHJs) are aware of the project and are in the process of evaluating any other necessary authorizations.

**Criterion IV: Team Qualification and Resources**

**Weight: [15%]**

- Capabilities and experience of the key personnel who are critical in achieving the application objectives, particularly in the area of business management and operation of industrial facilities.
- Adequacy of resources to accommodate the proposed project.
- Clarity and appropriateness of the roles of the team members.
- Level of participation by project participants as evidenced by letter(s) of commitment.

**3. Program Policy Factors**

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

- Cost Share above the minimum required.
- Alignment with the mission and goals of the Wind and Water Power Technologies Office.
- To avoid potential conflicts of interest, preference will be afforded to entities that will not be considered end users of the proposed facility.
- Selection to ensure geographic diversity of projects.

## **B. Review and Selection Process**

### **1. Merit Review**

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

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

### **2. Pre-Selection Clarification**

Based upon the results of the merit review of written applications, DOE may determine that pre-selection clarifications are necessary from certain Applicants. These pre-selection clarifications will be for the purposes of clarifying the application and may take the form of one or more of the following procedures: written responses to DOE’s written clarification questions, video or conference calls with DOE representatives, in person-meetings or presentations at DOE or applicant site. DOE, based upon the results of the merit review of written applications and in its sole discretion, may decide not to hold any pre-selection clarifications. The information provided by Applicants to DOE through pre-selection clarifications is incorporated in their application and contributes to the merit review evaluation and DOE’s selection decisions. Selection for participation in pre-selection clarifications does not signify that Applicants have been selected for negotiation of award. Applicant costs incurred to participate in pre-selection clarifications (such as travel or other presentation costs) are application costs and are only allowable to awardees as indirect expenses to Federally sponsored projects to the extent that those costs are allowable, allocable and reasonable.

### **3. Selection**

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

### **4. 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 October 2013 and making awards by December 2013.

## **SECTION VI - AWARD ADMINISTRATION INFORMATION**

### **A. Notice of Selection**

#### **1. Notice of Selection**

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

#### **2. Notice of Award**

A Financial Assistance Award or Assistance Agreement issued by the Contracting Officer is the authorizing award document. It normally includes, either as an attachment or by reference: (1) Special Terms and Conditions; (2) Applicable program regulations, if any; (3) Application as approved by DOE; (4) DOE assistance regulations at 10 CFR part 600; (5) National Policy Assurances To Be Incorporated As Award Terms; (6) Intellectual Property Provisions; (7) Statement of Project Objectives; (8) Federal Assistance Reporting Checklist, which identifies the reporting requirements; and (9) Budget Summary.

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

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

### **B. Administrative Requirements, National Policy Requirements, and Applicant Representations and Certifications**

#### **1. Administrative Requirements**

The administrative requirements for DOE grants and cooperative agreements are contained in Title 10 CFR Part 600 (See: [10 CFR 600](#)). Grants and cooperative agreements made to universities, non-profits and other entities subject to Title 10 CFR Part 600 are subject to the Research Terms and Conditions located on the National Science Foundation web site at:

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

#### **DUNS and SAM Requirements**

Additional administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR, Part 25 (See: <http://ecfr.gpoaccess.gov>). Prime awardees must keep their data at the System for Award Management (SAM) current at <https://www.sam.gov>. SAM is the government-wide system that replaced the Central Contracting Registry (CCR). If you had an active registration in the CCR, you have an active registration in SAM. Subawardees at all tiers must obtain DUNS numbers and provide the DUNS to the prime awardee before the subaward can be issued.

#### **Subaward and Executive Reporting**

Additional administrative requirements necessary for DOE grants and cooperative agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA)

are contained in 2 CFR, Part 170. (See: <http://ecfr.gpoaccess.gov>). Prime awardees must register with the new FSRS database and report the required data on their first tier subawardees. Prime awardees must report the executive compensation for their own executives as part of their registration profile in the System for Award Management (SAM).

## **2. Special Terms and Conditions, National Policy Requirements, and Applicant Representations and Certifications**

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

<http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>.

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

<http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>

### **Applicant Representations and Certifications**

#### **Corporate Felony Conviction and Federal Tax Liability Representations (March 2012)**

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

- (1) It is **not** a corporation that has been convicted (or had an officer or agent of such corporation acting on behalf of the corporation convicted) of a felony criminal violation under any Federal law within the preceding 24 months,
- (2) **No** officer or agent of the corporation have been convicted of a felony criminal violation for an offence arising out of actions for or on behalf of the corporation under Federal law in the past 24 months,
- (3) It is **not** a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

For purposes of these representations the following definitions apply:

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

#### **Applicant Lighting Efficiency Certification (April 2012)**

In submitting an application in response to this FOA the Applicant certifies that if chosen for a **grant** award and the award is in excess of \$1,000,000 it will, by the end of the Federal Government's fiscal year, upgrade the efficiency of its facilities by replacing any incandescent lighting of the type for which section 325 of the Energy Policy and

Conservation Act (42 USC 6295) establishes a standard that does not meet or exceed the energy efficiency standard for incandescent light bulbs set forth in that section with a lamp that meets or exceeds the standards for lamps established in or pursuant to that section.

Incandescent reflector lamps shall meet or exceed the lamp efficacy standards shown in the table:

<b>Rated lamp wattage</b>	<b>Lamp spectrum</b>	<b>Lamp diameter (inches)</b>	<b>Rated voltage</b>	<b>Minimum average lamp efficacy (lm/W)</b>
40–205	Standard Spectrum	>2.5	≥125V	6.8*P <sup>0.27</sup>
			<125V	5.9*P <sup>0.27</sup>
		≤2.5	≥125V	5.7*P <sup>0.27</sup>
			<125V	5.0*P <sup>0.27</sup>
40–205	Modified Spectrum	>2.5	≤125V	5.8*P <sup>0.27</sup>
			<125V	5.0*P <sup>0.27</sup>
		≤2.5	≥125V	4.9*P <sup>0.27</sup>
			<125V	4.2*P <sup>0.27</sup>

**Note 1:** P is equal to the rated lamp wattage, in watts.

**Note 2:** Standard Spectrum means any incandescent reflector lamp that does not meet the definition of modified spectrum in 10 CFR 430.2.

Subject to the exemption below, the standards specified in this section shall apply to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes.

Subject to the exemption below, the standards specified in this section shall apply to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches.

Exemption: The standards specified in this section shall not apply to the following types of incandescent reflector lamps:

- (A) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps;
- (B) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps; or
- (C) R20 incandescent reflector lamps rated 45 watts or less.

For purposes of this Certification, the following definitions apply:

- (A) Facilities mean the room(s), area(s), or building(s) that are used to complete a majority of the work under the project.
- (B) In excess of \$1,000,000 means the total value of the grant including all budget periods funded with Federal funds and recipient cost share is greater than \$1,000,000.
- (C) Federal Government’s fiscal year begins October 1<sup>st</sup> and ends September 30<sup>th</sup>.
- (D) Except as provided in subparagraph (4) below, the term “incandescent lamp” means a lamp in which light is produced by a filament heated to incandescence by an electric current, including only the following:
- (1) Any lamp (commonly referred to as lower wattage nonreflector general service lamps, including any tungsten-halogen lamp) that has a rated wattage between 30 and 199 watts, has an E26 medium screw base, has a rated voltage or voltage range that lies at least partially within 115 and 130 volts, and is not a reflector lamp.
  - (2) Any lamp (commonly referred to as a reflector lamp) which is not colored or designed for rough or vibration service applications, that contains an inner reflective coating on the outer bulb to direct the light, an R, PAR, ER, BR, BPAR, or similar bulb shapes with E26 medium screw bases, a rated voltage or voltage range that lies at least partially within 115 and 130 volts, a diameter which exceeds 2.25 inches, and has a rated wattage that is 40 watts or higher.
  - (3) Any general service incandescent lamp (commonly referred to as a high- or higher-wattage lamp) that has a rated wattage above 199 watts (above 205 watts for a high wattage reflector lamp).
  - (4) The term “incandescent lamp” does not include any lamp excluded by the Secretary, by rule, as a result of a determination that standards for such lamp would not result in significant energy savings because such lamp is designed for special applications or has special characteristics not available in reasonably substitutable lamp types.
- (E) The term “base” means the portion of the lamp which connects with the socket as described in ANSI C81.61–1990.
- (F) The term “bulb shape” means the shape of lamp, especially the glass bulb with designations for bulb shapes found in ANSI C79.1–1980 (R1984).
- (G) The term “lamp efficacy” means the lumen output of a lamp divided by its wattage, expressed in lumens per watt (LPW).
- (H) The term “lamp wattage” means the total electrical power consumed by a lamp in watts, after the initial seasoning period referenced in the appropriate IES standard test procedure and including, for fluorescent, arc watts plus cathode.

### **3. Intellectual Property Provisions**

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>



### **C. Reporting**

Reporting requirements will be identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement.

## SECTION VII - QUESTIONS

### A. Questions

Questions regarding the content of this announcement and program requirements must be submitted to: [Testing\\_Infrastructure\\_FOA@go.doe.gov](mailto:Testing_Infrastructure_FOA@go.doe.gov) not later than 3 business days prior to the application due date.

All questions and answers related to this FOA will be posted on EERE Exchange at: <https://eere-exchange.energy.gov/>. **Please note that you must first select this specific FOA Number in order to view the questions and answers specific to this FOA.** DOE will attempt to respond to a question within 3 business days, unless a similar question and answer has already been posted on the website.

Questions related to the registration process and use of the EERE Exchange website should be submitted to: [EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov)

## SECTION VIII - OTHER INFORMATION

### **A. Amendments**

Amendments to this announcement will be posted on the EERE eXCHANGE web site and the Grants.gov system. However, you will only receive an email when an amendment or an announcement is posted on these sites if you register for email notifications for this FOA in Grants.gov. DOE recommends that you register as soon after the release of the FOA as possible to ensure you receive timely notice of any amendments or other announcements.

### **B. Government Right to Reject or Negotiate**

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

### **C. Commitment of Public Funds**

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

### **D. Proprietary Application Information**

DOE will use data and other information contained in applications strictly for evaluation purposes. Applicants should not include confidential, proprietary, or privileged information in their applications unless such information is necessary to convey an understanding of the proposed project.

Applications containing confidential, proprietary, or privileged information must be marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. Government is not liable for the disclosure or use of unmarked information, and may use or disclose such information for any purpose.

The cover sheet of the application must be marked as follows and identify the specific pages containing confidential, proprietary, or privileged information:

Notice of Restriction on Disclosure and Use of Data:

Pages *[list applicable pages]* of this document may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

The header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure."

In addition, every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

#### **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.

#### **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.

**K. Lobbying Restrictions**

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

## 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.

**“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 SAM.

**"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. Refer to [10 CFR 600.5](#) for additional information regarding cooperative agreements.

**"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.

**“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 SAM. Call 1-866-705-5711 to receive one free of charge.

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

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

**“EERE Exchange”** is the Department of Energy, Energy Efficiency and Renewable Energy’s web system for posting Federal Funding Opportunity Announcements and receiving applications. [EERE eXCHANGE website](#)

**"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.

**“FedConnect”** is where federal agencies make awards via the web. <https://www.fedconnect.net/FedConnect/>

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

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

**"Grant"** means a Financial Assistance instrument used by 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 grant opportunities from all Federal grant-making agencies. Grants.gov is THE single access point for over 900 grant programs offered by the 26 Federal grant-making agencies. <http://www.grants.gov>

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

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

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

"**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 to describe the documentation submitted in response to a Funding Opportunity Announcement. Also see Application.

"**Recipient**" means the organization, individual, or other entity that receives a Financial Assistance Award from DOE, 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.

"**System for Award Management (SAM)**" is the primary database which collects, validates, stores and disseminates data in support of agency missions (<https://www.sam.gov>).

"**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 type of assistance instrument used 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.

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

## 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.

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

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

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

- Financial information associated with an individual
- Credit card numbers
- Bank account numbers
- Security clearance history or related information (not including actual clearances held)

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

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

## Appendix C – Cost Share Information

### 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 CFR 600.123;

- State and Local Governments are found at 10 CFR 600.224;
- For-profit Organizations are found at 10 CFR 600.313.

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 Rules \(10 CFR 600\)](#)

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. (v) Commercial Organizations. [FAR Subpart 31.2—Contracts with Commercial Organizations](#)

(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: [2 CFR 220 Cost Principles for Educational Institutions](#)

(ii) *Other nonprofit organizations.* Allowability is determined in accordance with: [2 CFR 230 Cost Principles for Nonprofit Organizations](#)

(iii) *Hospitals.* Allowability is determined in accordance with the provisions of: [Title 45 Appendix E to Part 74—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: [PART 225—Cost Principles for State, Local, and Indian Tribal Governments \(OMB Circular A–87\)](#)

(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 mean 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.

(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.

**SAMPLE COST SHARE CALCULATION  
FOR BLENDED COST SHARE PERCENTAGE**

*The following example shows the math for calculating required cost share for a project with \$2,000,000 in Federal funds with four tasks requiring different Non-federal cost share percentages:*

<u>Task</u>	<u>Proposed Federal Share</u>	<u>Required Federal Share %</u>	<u>Non-federal Cost Share %</u>
Task 1 (R&D)	\$1,000,000	80%	20%
Task 2 (R&D)	500,000	80%	20%
Task 3 (Demonstration)	400,000	50%	50%
Task 4 (Outreach)	<u>100,000</u>	100%	0%
	\$2,000,000		

Federal share (\$) divided by Federal share (%) = Task Cost

*Each task must be calculated individually as follows:*

Task 1  
 \$1,000,000 divided by 80% = \$1,250,000 (Task 1 Cost)  
 Task 1 Cost minus federal share = Non-federal share  
 \$1,250,000 - \$1,000,000 = **\$250,000 (Non-federal share)**

Task 2  
 \$500,000 divided 80% = \$625,000 (Task 2 Cost)  
 Task 2 Cost minus federal share = Non-federal share  
 \$625,000 - \$500,000 = **\$125,000 (Non-federal share)**

Task 3  
 \$400,000 / 50% = \$800,000 (Task 3 Cost)  
 Task 3 Cost minus federal share = Non-federal share  
 \$800,000 - \$400,000 = **\$400,000 (Non-federal share)**

Task 4  
 Federal share = \$100,000  
 Non-federal cost share is not mandated for outreach = **\$0 (Non-federal share)**



*The calculation may then be completed as follows:*

<u>Task</u>	<u>Proposed Federal Share</u>	<u>Federal Share %</u>	<u>Required Non-federal Cost Share \$</u>	<u>Required Non-federal Cost Share %</u>	<u>Total Project Cost</u>
Task 1	\$1,000,000	80%	\$250,000	20%	\$1,250,000
Task 2	500,000	80%	125,000	20%	625,000
Task 3	400,000	50%	400,000	50%	800,000
Task 4	<u>100,000</u>	100%	<u>0</u>	0%	<u>100,000</u>
	\$2,000,000		\$775,000		\$2,775,000

Blended Cost Share %

Non-federal share (\$775,000) divided by Total Project Cost (\$2,775,000) = 27.9% (Non-federal)

Federal share (\$2,000,000) divided by Total Project Cost (\$2,775,000) = 72.1% (Federal)