

## **NOTICE**

**Modifications to this Funding Opportunity Announcement (FOA) may have been made since this version was posted. Applicants are strongly advised to consult the FOA version posted on [www.FedConnect.com](http://www.FedConnect.com), the official application website, for the latest changes regarding the application materials, dates, and other requirements.**

The FedConnect system can be accessed through the following steps:

1. Go to <http://www.FedConnect.net/>
2. Click on "Search Public Opportunities"
3. Select "Reference Number" in the Search Criteria drop down box and then enter the Reference Number of the funding opportunity you are interested in (DE-FOA-XXXXXXX), followed by clicking the "Search" button
4. Click on the Title hyperlink after search results are displayed
5. On the right side of the screen, click on "BODY" under the "Solicitation" or "Amendment" folder; if multiple amendments exist, click on the most recent award amendment for the latest changes.

If you are new to the Federal grant application process, it can take 21 days or more to complete all of the registration processes needed to submit questions or application. These activities include acquiring a DUNS number, completing a Central Contract Registration (CCR), and FedConnect.com registration. Hence, if you are considering applying for this or another Funding Opportunity, we recommend beginning the registration process as soon as possible.

For further assistance throughout the application process, contact the following numbers:

- **General inquiries:** 1-888-DOE-RCVY (1-888-363-7289), <https://recoveryclearinghouse.energy.gov/>
- **Central Contract Registration (CCR) system:** 1-888-227-2423, <http://www.ccr.gov/Help.aspx>
- **FedConnect:** 1-800-899-6665, [support@fedconnect.net](mailto:support@fedconnect.net)
- **Specifics on FOA:** see "Questions" portion of the FOA

**FINANCIAL ASSISTANCE  
FUNDING OPPORTUNITY ANNOUNCEMENT**



**U. S. Department of Energy**

**National Energy Technology Laboratory**

**“Recovery Act: Training Program Development for  
Commercial Building Equipment Technicians, Building  
Operators, and Energy Commissioning Agents/Auditors”**

**Funding Opportunity Number: DE-FOA-0000118**

**Announcement Type: Initial**

**CFDA Number: 81.086 Conservation Research and Development**

**Issue Date: 06/29/2009**

**Letter of Intent Due Date: Not Applicable**

**Pre-Application Due Date: Not Applicable**

**Application Due Date: 09/01/2009 at 8:00:00 PM Eastern Time**

*This Announcement will remain open until the Application Due Date indicated above  
however, applications may be submitted any time before this Announcement closes.*

*It is also recommended that application submission begin well in advance (at least  
48 hours) of the Announcement closing.*

## NOTE: REGISTRATION/SUBMISSION REQUIREMENTS

### **Registration Requirements**

There are several one-time actions you must complete in order to submit an application in response to this Announcement (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contractor Registration (CCR), and register with FedConnect). Applicants, who are not registered with CCR and FedConnect, should allow at least 10 days to complete these requirements. It is suggested that the process be started as soon as possible.

**Applicants must obtain a DUNS number. DUNS website: <http://fedgov.dnb.com/webform>**

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

**Applicants must register with FedConnect to submit their application. FedConnect website: [www.fedconnect.net](http://www.fedconnect.net)**

### **Questions**

Questions relating to the **system requirements or how an application form works** must be directed to Grants.gov at 1-800-518-4726 or [support@grants.gov](mailto:support@grants.gov).

Questions regarding the **content** of the announcement must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party to submit questions, and to view responses to questions. It is recommended that you register as soon after release of the FOA as possible to have the benefit of all responses. More information is available at <http://www.compusearch.com/products/fedconnect/fedconnect.asp>. DOE/NNSA will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

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

### **Application Preparation and Submission**

**Applicants must download the application package, application forms and instructions, from Grants.gov. Grants.gov website: <http://www.grants.gov/>**

(Additional instructions are provided in Section IV A of this FOA.)

**Applicants must submit their application through the FedConnect portal. FedConnect website: [www.fedconnect.net](http://www.fedconnect.net)**

(Additional instructions are provided in Section IV H of this FOA.)

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## **SECTION I - FUNDING OPPORTUNITY DESCRIPTION**

### **AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (ARRA 2009)**

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

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

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

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

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

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

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

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

## **A. FUNDING OPPORTUNITY ANNOUNCEMENT OBJECTIVES**

The Department of Energy (DOE) National Energy Technology Laboratory (NETL), on behalf of the Office of Energy Efficiency and Renewable Energy's (EERE's) Building Technologies Program (BTP), is seeking applications for projects that focus on developing training programs for various building specialists. The programs shall use existing curricula or develop new training curricula for their course content. To achieve the full potential of energy efficient (and eventual net zero-energy) buildings, our Nation needs commercial building equipment technicians, operators, and energy commissioning agents/auditors who know how to properly run and tune building systems. The combination of efficient operations and advanced design will improve the internal built environment: its energy use, comfort, safety, and environmental impact.

Given the subject matter expertise of the Building Technologies staff as well as an extensive stakeholder network, the Department of Energy is uniquely positioned to execute this initiative and add value. The Building Technologies Program intends to award a number of cooperative agreements through this FOA to develop training programs for implementation upon completion of awarded project(s). Curricula, certification requirements, and accreditation standards for training on energy efficient practices and technologies advancing industry expertise towards DOE's net-zero energy commercial building goals are sought. Training programs are needed for three types of commercial building specialists: equipment technicians, operators, and energy commissioning agents/auditors. The objective is to enable the development of a workforce that can bring existing commercial buildings up to their energy performance potential and to help ensure that new commercial buildings do not fall below their expected optimal level of performance. This project is in support of the Recovery Act.

DOE estimates that approximately \$7.5 million will be available for multiple awards under this FOA distributed among three areas of interest (reference PART I, Section C). Each project is to be conducted within a performance period of 24 months.

All organizations involved in development of energy efficiency best practices in building operation and design, such as professional development associations, trade training/development associations (including those with certification programs), universities, community colleges, technical trade schools, and apprenticeship programs are strongly encouraged to partner and apply.

## **B. BACKGROUND INFORMATION**

The nation's five million commercial buildings consume 18 quads, have associated CO<sub>2</sub> emissions of 1.05 gigatons, and have utility bills of nearly \$170 billion/year. The Energy Information Agency (EIA) projects that this will increase to 23.5 quads by 2030, as new buildings are added to the stock. Current investments in advanced building technologies are mitigating this impact, however, properly trained equipment technicians, building operators, and building energy commissioning agents/auditors are needed to ensure equipment operates at design specifications. Studies have found that the difference in energy cost between a properly operated building and a typical building that is not properly operated can be as high as 15%.

The Department's Strategic Plan identifies five Strategic Themes: Energy Security, Nuclear Security, Scientific Discovery and Innovation, Environmental Responsibility, and Management Excellence. (Additional information may be found at <http://www.cfo.doe.gov/strategicplan/energysecurity.htm>.)

The Strategic Themes cascade to broad Strategic Goals and are linked to individual Program Goals. Individual programs have developed multi-year program plans to execute annual performance budgets in this cascading effort in support of the Strategic Themes. The multi-year program plans allow DOE to strategize (over a five-year period) how each program will implement the strategic goals of the Department through accomplishment of long-term programmatic goals. The Building Technologies Program (BTP) supports the following DOE strategic and program goals:

**Strategic Theme 1: Energy Security:** Keeping America economically strong requires reliable, clean, and affordable energy, and the best way to achieve this is through competitive energy markets, science-driven technology, and supportive government policies. To address domestic energy security, DOE is focused on stimulating private investment in energy supply and advanced technologies through diversifying energy markets, reducing emissions, and increasing reliability and productivity.

**Strategic Goal 1.4 – Energy Productivity:** Energy efficiency is the ability to produce more energy services (e.g., lighting, heating, and transportation) as well as create more economic value (gross domestic product, worker productivity, and air quality) from a fixed amount of energy. In support of this Strategic Goal, the BTP is to develop integrated building technologies and formulate appliance standards to significantly increase energy efficiencies of residential and commercial buildings.

#### **Building Technologies Program Strategic Goals**

In support of these national policies and initiatives, BTP has embraced the strategic goal of developing net-zero-energy buildings to reduce national energy demand. The Program has defined its strategic goal more specifically as:

*“To create technologies and design approaches that enable net-zero-energy buildings at low incremental cost by 2025. A net-zero-energy building is a residential or commercial building with greatly reduced needs for energy through efficiency gains (60 to 70 percent less than conventional practice), with the balance of energy needs supplied by renewable technologies. These efficiency gains will have application to buildings constructed before 2025, resulting in a substantial reduction in energy use throughout the sector.”*

(Additional information may be found at <http://www1.eere.energy.gov/buildings/mypp.html>.)

In addition, the Energy Independence and Security Act of 2007 (EISA) calls for the identification and development of educational resources for building professionals and trades to effectively implement high performance building practices. These goals are supported by the activities stated in EISA Sections 422 and 423.

### **C. PROGRAM AREAS OF INTEREST**

Although there is great similarity in subject matter topic areas among Areas of Interest, the target audiences are different and, therefore, applications must be tailored towards the specific Area of Interest target audience. Applicants may propose programs focusing on individual or multiple Areas of Interest. However, a separate application must be prepared for each Area of Interest the applicant is applying towards. Training curricula described in each application must be developed to meet the needs, specialized expertise, and perspectives of each group to be trained. Applications must distinctively present this focus.

Applicants may propose programs to address the various climate zones requirements as described by The International Energy Code Council (IECC) either by specific zones or as many as applicant deems appropriate to meet the objectives of this FOA.

This FOA is not intended for the actual deployment of the Training Program(s) or the training of personnel. Awards will be made for only the development of Training Program(s) and commercialization planning.

### **Project Task Structure**

The format, key requirements, and application requirements for all Areas of Interest are provided in Part IV of this FOA. Discussion of each task is provided below. Each applicant must propose an activity under each task, maintaining the same task structure in each period and detail expected progress towards all tasks. Applicants should provide detailed descriptions of the activities planned over the life of the project period.

**Task 1) Project Management Plan** – The Project Management Plan (as later detailed) shall be revised immediately after award and as needed upon completion of each stage of project progression.

**Task 2) Integration Plan** – Training syllabus with detailed sequenced topic areas to be covered along with a paragraph synopsis of each.

**Task 3) Curricula Deficiency/Developmental Needs Analysis** – Identifies energy efficiency knowledge gaps in existing programs and plans to address the gaps with either modified or new curricula. Information supporting the analysis and recommendations made must be documented.

**Go/recycle/no-go** – DOE will determine whether or not to proceed. If the proposed curricula analysis does not fulfill programmatic expectations, DOE shall work with the awardee to make necessary modifications to resolve the deficiency before progressing to the next task. Before progressing to the next task, or conclude the project.

**Task 4) Curricula Development** – Detailed description of the subject matter content and development of training material in which no existing curricula exists, or updates are necessary.

**Task 5) Consolidated Training Material** – Synthesis of information into a clear and comprehensive program encompassing all subject matter content to be taught. The training program shall provide concurrent lesson plans to allow an understanding of relationships between building equipment/systems, energy conservation principles, and associated risks (e.g. air quality, moisture control, occupant comfort, etc.).

**Task 6) Certification/Accreditation Plan** – Development of plans detailing how the proposed training, once implemented, will provide widely recognized certification to participants recognized by an Accreditation Board. Certification standards and requirements must include a complete assessment of subject matter knowledge gained, the ability to apply critical thinking skills (e.g. problem solving), and communication skills (e.g. writing/presentations).

**Task 7) Commercialization and Sustainability Plan** – A detailed commercialization plan providing a sound business case must be developed for the Training Program(s). At a minimum, this must address marketing, deployment, financial characterization, and job placement for long-term sustainability of the Program(s) supporting workforce development to advance commercial buildings towards net-zero energy.

The following websites provide a listing of available resources addressing Commercial Buildings Integration and some of its supporting technical components.

- **U.S. Department of Energy**  
High Performance Buildings web site  
[http://www.eere.energy.gov/buildings/commercial\\_initiative/](http://www.eere.energy.gov/buildings/commercial_initiative/)  
[www1.eere.energy.gov/buildings/commercial/operate\\_maintain.html](http://www1.eere.energy.gov/buildings/commercial/operate_maintain.html)



High Performance Buildings database  
[www.eere.energy.gov/buildings/database](http://www.eere.energy.gov/buildings/database)

EnergyPlus building energy simulation software  
[www.eere.energy.gov/buildings/energyplus](http://www.eere.energy.gov/buildings/energyplus)

Building Technologies Multiyear Plan  
[www1.eere.energy.gov/buildings/mypp.html](http://www1.eere.energy.gov/buildings/mypp.html)

- **ASHRAE**

Standard 90.1

[www.ashrae.org](http://www.ashrae.org)

[www.realread.com/prst/pageview/browse.cgi?book=1931862664](http://www.realread.com/prst/pageview/browse.cgi?book=1931862664)

ASHRAE/IESNA/USGBC/AIA/DOE Advanced Energy Design Guides

- Small Office (published 2004)

- Small Retail (published 2006)

- K-12 Schools (published January 2008)

- Warehouses (published spring 2008)

[www.ashrae.org/technology/page/938](http://www.ashrae.org/technology/page/938)

- **IEA Buildings and Community Systems (IEA ECBCS Programme)**

Annex 40 Commissioning of Building HVAC Systems for Improving Building Energy Performance

[www.ecbcs.org/annexes/annex40.htm](http://www.ecbcs.org/annexes/annex40.htm)

[www.commissioning-hvac.org](http://www.commissioning-hvac.org)

Annex 47 Cost Effective Commissioning of Existing and Low Energy Buildings

[www.ecbcs.org/annexes/annex47.htm](http://www.ecbcs.org/annexes/annex47.htm),

- **National Renewable Energy Laboratory**

Lessons Learned from Case Studies of Six High-Performance Buildings

[www.nrel.gov/docs/fy06osti/37542.pdf](http://www.nrel.gov/docs/fy06osti/37542.pdf)

Assessment of the Technical Potential for Achieving Net-Zero-Energy Buildings in the Commercial Sector

[www.nrel.gov/docs/fy08osti/41957.pdf](http://www.nrel.gov/docs/fy08osti/41957.pdf)

Methodology for Modeling Building Energy Performance Across the Commercial Sector

<http://www.nrel.gov/docs/fy08osti/41956.pdf>

## **AREA OF INTEREST 1 – TRAINING PROGRAMS FOR COMMERCIAL BUILDING EQUIPMENT TECHNICIANS**

The DOE BTP is seeking applications for training programs that will help achieve the goal of bringing existing buildings up to their optimal energy performance level and ensuring that new buildings maintain their expected optimal level of performance. As a result, building technicians participating in these training programs shall learn how to best operate our commercial buildings efficiently.

Multiple awards are anticipated in this area as training programs are expected to be developed and ready for commercialization in multiple locations across the Nation. Awards will fund the initial 24 months of training program development, however, DOE expects awardees to continue to deploy a sustainable program beyond the funding period of this project. Award sizes are likely to vary based on the comprehensiveness of content and implementation strategy.

## **Training Program Requirements**

Applications are sought for the development of training programs for commercial building equipment technicians. Programs must be applicable to both new buildings as well as existing buildings. Programs shall utilize existing, modified, or newly developed curricula. The applications shall include a combination of classroom, online, and on-site training lessons. Applications should address at least the following topics and others as appropriate to the audience:

- Introduction to energy efficiency in commercial buildings
- Measuring and benchmarking energy performance
- Introduction to advanced technology systems
  - Heating
  - Cooling
  - Refrigeration
  - Ventilation
  - Moisture control
  - Hot water
  - Lighting
  - Sensors and energy management systems
  - Renewable energy systems
  - Indoor air quality
- Typical least cost operational adjustments to improve energy efficiency
- Improving integration of building systems
  - Identifying potential building system synergies (e.g. energy recovery systems)
  - Advanced technologies for synergistic benefit
- Best practices maintenance of building systems and components
  - Fault detection (automatic and manual)
  - Correct maintenance procedures and quality assurance techniques
  - Sensors and energy management systems

## **Target Training Audience**

Properly trained building technicians are necessary to achieve sustained performances after building owners make the initial investment. This FOA seeks organizations with the ability to develop curricula, certification requirements, and accreditation standards for training these technicians. Applicants must clearly demonstrate past experience in developing similar training programs or evidence of the ability to currently do so.

## **AREA OF INTEREST 2 – TRAINING PROGRAMS FOR COMMERCIAL BUILDING OPERATORS**

The DOE BTP is seeking applications for projects that will help achieve the goal of bringing existing buildings up to their optimal energy performance level and ensuring that new buildings maintain their expected optimal level of performance. As a result, building operators participating in these programs shall learn how to best operate our commercial buildings efficiently.

Multiple awards are anticipated in this area as training programs are expected to be developed and ready for commercialization in multiple locations across the Nation. Awards will fund the initial 24 months of training program development, however, DOE anticipates awardees to continue to deploy a sustainable program beyond the funding period of this project. Award sizes are likely to vary based on the comprehensiveness in content and implementation strategy.

### **Training Program Requirements**

Applications are sought for the development of training programs for commercial building operators. Programs must be applicable to both new buildings as well as existing buildings. Programs shall utilize existing, modified, or newly developed curricula. The applications shall include a combination of classroom, online, and on-site training lessons. Applications should address at least the following topics and others as appropriate to the audience:

- Introduction to energy efficiency in commercial buildings
  - Benefits of energy efficiency
  - Introduction to onsite generation and transmission systems
  - Valuing technology-specific energy efficiency improvements
- Measuring and benchmarking energy performance
  - Benchmarking energy performances of systems, components, and whole buildings
  - Methods to improve energy performances
- Introduction to advanced technologies
- Typical least cost operational adjustments to improve energy efficiency
- Building an energy performance awareness program
  - Educating owners, tenants, brokers, leasing, and sales staff about specific benefits of improved energy performance
  - Creating case studies and success stories
- Improving integration of building systems
  - Identifying potential building system synergies (e.g. energy recovery systems)
  - Advanced technologies for synergistic benefit
- Best practices maintenance of building systems and components
  - Fault detection (automatic and manual)
  - Correct maintenance procedures and quality assurance techniques
  - Sensors and energy management systems

### **Target Training Audience**

Properly trained operators are necessary to achieve sustained performances after building owners make the initial investment. This FOA seeks organizations with the ability to develop curricula, certification requirements, and accreditation standards for training these operators. Applicants must clearly demonstrate past experience in developing similar training programs or evidence of the ability to currently do so.

### **AREA OF INTEREST 3 – TRAINING PROGRAMS FOR COMMERCIAL BUILDING ENERGY COMMISSIONING AGENTS/AUDITORS**

The DOE BTP is seeking applications for projects that will help achieve the goal of bringing existing buildings up to their optimal energy performance potential and ensuring that new buildings maintain their expected optimal level of performance. As a result, energy commissioning agents and auditors participating in these programs shall learn how to best operate our commercial buildings

Multiple awards are anticipated in this area as training programs are expected to be developed and ready for commercialization in multiple locations across the Nation. Awards will fund the initial 24 months of training program development, however, DOE anticipates awardees to continue to deploy a sustainable program beyond the funding period of this project. Award sizes are likely to vary based on the comprehensiveness in content and implementation strategy.

## **Training Program Requirements**

Applications are sought for the development of training programs for commercial energy commissioning agents and energy auditors. Programs must be applicable to both new buildings as well as existing buildings. Programs shall utilize existing, modified, or newly developed curricula. The applications shall include a combination of classroom, online, and on-site training lessons. Applications should address at least the following topics and others appropriate to the audience:

- Introduction to energy efficiency in commercial buildings
  - Benefits of energy efficiency and commissioning
  - Introduction to onsite generation and transmission systems
  - Valuing technology-specific energy efficiency improvements
- Measuring and benchmarking energy performance
  - Benchmarking energy performances of systems, components, and whole buildings
  - Methods to improve energy performances
  - Testing protocols
- Introduction to advanced technologies
  - Heating systems
  - Cooling systems
  - Refrigeration systems
  - Ventilation systems
  - Moisture control systems
  - Hot water systems
  - Lighting systems
  - Sensors and energy management systems
  - Renewable energy systems
  - Indoor air quality
- Typical least cost operational adjustments to improve energy efficiency
- Building an energy performance awareness program
- Improving integration of building systems
  - Identifying potential building system synergies (e.g. energy recovery systems)
  - Advanced technologies for synergistic benefit
- Best practices maintenance of building systems and components
  - Fault detection (automatic and manual)
  - Correct maintenance procedures and quality assurance techniques
  - Sensors and energy management systems

## **Target Training Audience**

Properly trained energy commissioners/auditors are necessary to achieve sustained performances after building owners make the initial investment. This FOA seeks organizations with the ability to develop curricula, certification requirements, and accreditation standards for training these energy commissioners/auditors. Applicants must clearly demonstrate past experience in developing similar training programs or evidence of the ability to currently do so.

## **SECTION II - AWARD INFORMATION**

### **A. TYPE OF AWARD INSTRUMENT**

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

### **B. ESTIMATED FUNDING**

It is anticipated that the total DOE funding available under this opportunity will be approximately \$7.5 million with the first awards expected to be available in FY 2010.

### **C. MAXIMUM AND MINIMUM AWARD SIZE**

- Ceiling (i.e., the maximum amount for an individual award made under this Announcement): None

- Floor (i.e., the minimum amount for an individual award made under this Announcement): None

### **D. EXPECTED NUMBER OF AWARDS**

DOE anticipates making ten (10) to thirty (30) awards under this Announcement depending on the size of the awards.

### **E. ANTICIPATED AWARD SIZE**

DOE anticipates that awards will be in the \$250,000 to \$750,000 range.

### **F. PERIOD OF PERFORMANCE**

DOE anticipates making awards that will run for twenty-four (24) months.

### **G. TYPE OF APPLICATION**

DOE will accept only new applications under this announcement.

### **SECTION III - ELIGIBILITY INFORMATION**

#### **A. ELIGIBLE APPLICANTS**

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

#### **B. COST SHARING**

Cost sharing is not required but is strongly encouraged.

#### **C. OTHER ELIGIBILITY REQUIREMENTS**

- FFRDC contractors may not apply or propose as a team member/sub-recipient/sub-awardee on another entity's application under this FOA.

#### **PERFORMANCE OF WORK IN UNITED STATES**

- The Recipient agrees that at least 75% of the direct labor cost for the project (including subcontractor labor) shall be incurred in the United States, unless the Recipient can demonstrate to the satisfaction of the Department of Energy that the United States economic interest will be better served through a greater percentage of the work being performed outside the United States.

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

### **A. ADDRESS TO REQUEST APPLICATION PACKAGE**

Application forms and instructions are available at Grants.gov. To access these materials, go to <http://www.grants.gov>, select "Apply for Grants," and then select "Download Application Package." Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package. Once you have SAVED the application package and completed all the required documentation, you will submit your application via the Fedconnect portal. **DO NOT use the Save & Submit selection in Grants.gov.**

### **B. LETTER OF INTENT AND PRE-APPLICATION**

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

Letters of Intent are not required.

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

Pre-applications are not required.

### **C. CONTENT AND APPLICATION FORMS**

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

#### **1. SF 424 (R&R)**

Complete this form first to populate data in other forms. Complete all the required fields in accordance with the pop-up instructions on the form. The list of certifications and assurances referenced in Field 17 can be found on the DOE Financial Assistance Forms Page at [http://management.energy.gov/business\\_doe/business\\_forms.htm](http://management.energy.gov/business_doe/business_forms.htm) under Certification and Assurances.

#### **2. RESEARCH AND RELATED Other Project Information**

Complete questions 1 through 6 and attach files. The files must comply with the following instructions:

##### **Project Summary/Abstract (Field 7 on the Form)**

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information as the Department may make it available to the public. The project summary must not exceed 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. To attach a Project Summary/Abstract, click "Add Attachment."

## Project Narrative (Field 8 on the Form)

The **Project Narrative must not exceed 25 pages, double spaced**, 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) with font not smaller than 11 point. **EVALUATORS WILL ONLY REVIEW THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE.** The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application, because the information contained in these sites will not be reviewed. See Part VIII.D for instructions on how to mark proprietary application information. To attach a Project Narrative, click "Add Attachment."

The project narrative must include:

- **Project Objectives:** This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
- **Merit Review Criterion Discussion:** The section should be formatted to address each of the merit review criterion and sub-criterion listed in Part V.A. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. **DOE WILL EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT ADDRESS SEPARATELY EACH OF THE MERIT REVIEW CRITERION AND SUB-CRITERION.**
- **Relevance and Outcomes/Impacts:** This section should explain the relevance of the effort to the objectives in the program announcement and the expected outcomes and/or impacts.
- **Roles of Participants:** For multi-organizational or multi-investigator projects, describe the roles and the work to be performed by each participant/investigator, business agreements between the applicant and participants, and how the various efforts will be integrated and managed.
- **Multiple Principal Investigators:** The applicant, whether a single organization or team/partnership/consortium, must indicate if the project will include multiple PIs. This decision is solely the responsibility of the applicant. If multiple PIs will be designated, the application must identify the Contact PI/Project Coordinator and provide a "Coordination and Management Plan" that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:
  - process for making decisions on scientific/technical direction;
  - publications;
  - intellectual property issues;
  - communication plans;
  - procedures for resolving conflicts; and
  - PIs' roles and administrative, technical, and scientific responsibilities for the project.

**Statement Of Project Objectives (SOPo):** The project narrative must contain a single, detailed Statement of Project Objectives that addresses how the project objectives will be met. The Statement of Project Objectives must contain a clear, concise description of all activities to be completed during project performance and follow the structure discussed below. The Statement of Project Objectives may be released to the public by DOE in whole or in part at any time. It is therefore required that it shall not contain proprietary or confidential business information. The Statement of Project Objectives is generally less than 5 pages in total for the proposed work and **WILL COUNT** in the project narrative page limitation. Applicants shall prepare the Statement of Project Objectives in the following format:



**TITLE OF WORK TO BE PERFORMED**  
(Insert the title of work to be performed. Be concise and descriptive.)

**A. OBJECTIVES**

Include one paragraph on the overall objective(s) of the work. Also, include objective(s) for each phase of the work.

**B. SCOPE OF WORK**

This section should not exceed one-half page and should summarize the effort and approach to achieve the objective(s) of the work for each Phase.

**C. TASKS TO BE PERFORMED**

Tasks, concisely written, should be provided in a logical sequence and should be divided into the phases of the project, as appropriate. This section provides a brief summary of the planned approach to this project. An outline of the Project Management Plan (referenced in Task 1.0 below and required to be submitted with your application) is provided later in this Section.

**PHASE I**

**Task 1.0 - Project Management and Planning**

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

Subtask 1.1  
(Description)

Task 2.0 - (Title)

**PHASE II (Optional)**

Task 3.0 - (Title)

**D. DELIVERABLES**

The following reports shall be submitted. Additionally, the quarterly progress reports and financial statements detailing Federal and applicant cost share expenditures shall be provided. The final technology analysis report shall be a laboratory published, peer reviewed report for public distribution.

- Program Plan
- Detailed Lesson Plans
- Curricula Deficiency/Needs Analysis
- Commercialization Plan
- Certification/Accreditation Standards
- Annual and Final Curricula Development Program Report

**E. BRIEFINGS/TECHNICAL PRESENTATIONS**

The project team shall prepare detailed briefings for presentation to the DOE Project Officer at DOE Headquarters in Washington, DC or the NETL facility located in Pittsburgh, PA or Morgantown, WV. Briefings shall explain the plans, progress, and results of technical efforts.

**(END OF STATEMENT OF PROJECT OBJECTIVES)**

- **Identification of Potential Conflicts of Interest or Bias in Selection of Reviewers**  
**Appendix:** Provide the following information in this section. This appendix **WILL NOT**

**COUNT** in the project narrative page limitation:

Collaborators and Co-editors: List in alphabetical order all persons, including their current organizational affiliation, who are, or who have been, collaborators or co-authors with you on a research project, book or book article, report, abstract, or paper during the 48 months preceding the submission of this application. Also, list any individuals who are currently, or have been, co-editors with you on a special issue of a journal, compendium, or conference proceedings during the 24 months preceding the submission of this application. If there are no collaborators or co-editors to report, state "None."

Graduate and Postdoctoral Advisors and Advisees: List the names and current organizational affiliations of your graduate advisor(s) and principal postdoctoral sponsor(s) during the last 5 years. Also, list the names and current organizational affiliations of your graduate students and postdoctoral associates

- **Bibliography & References Cited Appendix:** Provide a bibliography of any references cited in the Project Narrative. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Include only bibliographic citations. Applicants should be especially careful to follow scholarly practices in providing citations for source materials relied upon when preparing any section of the application. In order to reduce the number of files attached to your application, please provide the Bibliography and References Cited information as an appendix to your project narrative. Do not attach a file in Field 9. This appendix **WILL NOT COUNT** in the project narrative page limitation.
- **Facilities & Other Resources Appendix:** This information is used to assess the capability of the organizational resources, including subawardee resources, available to perform the effort proposed. Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical, and Other). 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. Describe other resources available to the project (e.g., machine shop, electronic shop) and the extent to which they would be available to the project. In order to reduce the number of files attached to your application, please provide the Facility and Other Resource information as an appendix to your project narrative. Do not attach a file in Field 10. This appendix **WILL NOT COUNT** in the project narrative page limitation.
- **Equipment Appendix:** List major items of equipment already available for this project and, if appropriate identify location and pertinent capabilities. In order to reduce the number of files attached to your application, please provide the Equipment information as an appendix to your project narrative. Do not attach a file in Field 11. This appendix **WILL NOT COUNT** in the project narrative page limitation.

Other Attachments (Field 12 on the form)

If you need to elaborate on your responses to questions 1-6 on the "Other Project Information" document, attach a file in field 12. **Also, attach the following files:**

## **Project Management Plan**

*This plan should be formatted to include the following sections with each section to include the information as described below:*

**A. Executive Summary:**

*Provide a description of the project that includes the objective, project goals, and expected results. For purposes of the application, this information is included in the Project Narrative (Field 8) and should be simply copied to this document for completeness, so that the Project Management Plan is a stand-alone document.*

**B. Risk Management:**

*Provide a summary description of the proposed approach to identify, analyze, and respond to perceived risks associated with the proposed project. Project risk events are uncertain future events that, if realized, impact the success of the project. As a minimum, include the initial identification of significant technical, resource, and management issues that have the potential to impede project progress and strategies to minimize impacts from those issues.*

**C. Milestone Log:**

*Provide milestones for each budget period (or phase) of the project. Each milestone should include a title and planned completion date, Milestones should be quantitative and show progress toward budget period and/or project goals.*

*[Note: During project performance, the Recipient will report the Milestone Status as part of the required quarterly Progress Report as prescribed under Attachment 4, Reporting Requirements Checklist. The Milestone Status will present actual performance in comparison with Milestone Log, and include:*

- (1) the actual status and progress of the project,*
- (2) specific progress made toward achieving the project's milestones, and,*
- (3) any proposed changes in the project's schedule required to complete milestones. ]*

**D. Funding and Costing Profile:**

*Provide a table (the Project Funding Profile) that shows, by budget period, the amount of government funding going to each project team member. Also provide a table (the Project Costing Profile) that projects, by month, the expenditure of government funds for the first budget period, at a minimum.*

**E. Project Timeline:**

*Provide a timeline of the project (similar to a Gantt chart) broken down by each task and subtask, as described in the Statement of Project Objectives. The timeline should include for each task, a start date, and end date. The timeline should show interdependencies between tasks and include the milestones that are identified in the Milestone Log (Section C).*

**F. Success Criteria at Decision Points:**

*Provide success criteria for each decision point in the project, including go/no-go decision points and the conclusions of budget periods and the entire project. The success criteria should be objective and stated in terms of specific, measurable, and repeatable data. Usually, the success criteria pertain to desirable outcomes, results, and observations from the project.*

### **(END OF PROJECT MANAGEMENT PLAN)**

*[Note: As the first task in the Statement of Project Objectives, successful applicants will revise the version of the Project Management Plan that is submitted with their applications by including details from the negotiation process. This Project Management Plan will be updated by the Recipient as the project progresses, and the Recipient must use this plan to report schedule and budget variances.]*

Save this plan in a single file named "pmp.pdf" and click on "Add Attachments" in Field 12 to attach.

### **Commitment Letters**

- *Cost Sharing:* If a third party, (i.e., a party other than the organization submitting the application) proposes to provide cost sharing, the applicant must include a letter from the third party stating that it is committed to providing a specific minimum dollar amount of cost sharing. The letter should also identify the proposed cost sharing (e.g., cash, services, and/or property) to be contributed. Letters must be signed by the person authorized to commit the expenditure of funds by the entity and be provided in a PDF format. Save this information in a single file named "CLTP.pdf" and click on "Add Attachments" in Field 12 to attach.
- *Participating Member:* Letters providing evidence of corporate commitment to support the activities and overall objectives of the project proposed in response to this FOA must be provided for each member organization identified in the application.

### **3. RESEARCH AND RELATED SENIOR/KEY PERSON**

Complete this form before the Budget form to populate data on the Budget form. Beginning with the PD/PI, provide a profile for each senior/key person proposed. A senior/key person is any individual who contributes in a substantive, measurable way to the scientific/technical development or execution of the project, whether or not a salary is proposed for this individual. Subawardees and consultants must be included if they meet this definition. For each senior/key person provide:

**Biographical Sketch.** Complete a biographical sketch for each senior/key person and attach to the "Attach Biographical Sketch" field in each profile. The biographical information for each person must not exceed 2 pages when printed on 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right) with font not smaller than 11 point and must include:

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

**Research and 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.

Current and pending support information is not required for this program. Do not attach a Current and Pending Support file.

#### **4. RESEARCH AND RELATED BUDGET (TOTAL FED + NON-FED)**

Complete the Research and Related Budget (Total Fed & Non-Fed) form in accordance with the instructions on the form and the following instructions. You must complete a separate budget for each year of support requested. The form will generate a cumulative budget for the total project period. You must complete all the mandatory information on the form before the NEXT PERIOD button is activated. You may request funds under any of the categories listed 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).

Budget Justification (Field K on the form).

Provide the required supporting information for the following costs (See R&R instructions): equipment; domestic and foreign travel; participant/trainees; material and supplies; publication; consultant services; ADP/computer services; subaward/consortium/contractual; equipment or facility rental/user fees; alterations and renovations; and indirect cost type. Provide any other information you wish to submit to justify your budget request. If cost sharing is required, provide an explanation of the source, nature, amount, and availability of any proposed cost sharing. Attach a single budget justification file for the entire project period in Field K. The file automatically carries over to each budget year.

#### **5. R&R SUBAWARD (TOTAL FED + NON-FED) FORM**

Budgets for Subawardees, other than DOE FFRDC Contractors. You must provide a separate cumulative R&R 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). Download the R&R Budget Attachment from the R&R SUBAWARD BUDGET (Total Fed + Non-Fed) FORM and e-mail it to each subawardee that is required to submit a separate budget. After the Subawardee has e-mailed its completed budget back to you, attach it to one of the blocks provided on the form. Use up to 10 letters of the subawardee's name as the file name.

#### **6. PROJECT/PERFORMANCE SITE LOCATION(S)**

Indicate the primary site where the work will be performed. If a portion of the project will be performed at any other site(s), identify the site location(s) in the blocks provided.

Note that the Project/Performance Site Congressional District is entered in the format of the 2 digit state code followed by a dash and a 3 digit Congressional district code, for example VA-001. Hover over this field for additional instructions.

Use the Next Site button to expand the form to add additional Project/Performance Site Locations.

#### **7. DISCLOSURE OF LOBBYING ACTIVITIES (SF-LLL)**

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

#### **8. SUMMARY OF REQUIRED FORMS AND FILES**

Your application must include the following documents:

Name of Document	Format	Attach to
<b>SF 424 (R&amp;R)</b>	Form	N/A
<b>RESEARCH AND RELATED OTHER PROJECT INFORMATION</b>	Form	N/A
Project Summary/Abstract	PDF	Field 7
Project Narrative, including required appendices	PDF	Field 8
Project Management Plan	PDF	Field 12
Commitment Letters from Third Parties and Participating Members	PDF	Field 12
<b>RESEARCH &amp; RELATED SENIOR/KEY PERSONNEL PROFILE</b>	Form	N/A
Biographical Sketch	PDF	Attach to appropriate block
<b>RESEARCH AND RELATED BUDGET (TOTAL FED + NON-FED)</b>	Form	N/A
Budget Justification	PDF	Field K
<b>R&amp;R SUBAWARD BUDGET (TOTAL FED + NON-FED) ATTACHMENT(S) FORM, if applicable</b>	Form	N/A
<b>PROJECT/PERFORMANCE SITE LOCATION(S)</b>	Form	N/A
<b>SF-LLL DISCLOSURE OF LOBBYING ACTIVITIES, if applicable</b>	Form	N/A

#### 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  
([http://www.netl.doe.gov/business/forms.html#POST\\_SEL\\_AP](http://www.netl.doe.gov/business/forms.html#POST_SEL_AP))

#### E. SUBMISSION DATES AND TIMES

##### 1. Pre-application Due Date

Pre-applications Are Not Required

##### 2. Application Due Date

Applications must be received by September 1, 2009, **not later than 8:00:00 PM Eastern Time. You are encouraged to transmit your application well before the deadline (at least 48 hours in advance). APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.**

#### F. INTERGOVERNMENTAL REVIEW

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

## **G. FUNDING RESTRICTIONS**

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

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

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

## **H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS**

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

#### **FedConnect**

**APPLICATIONS MUST BE SUBMITTED THROUGH FEDCONNECT TO BE CONSIDERED FOR AWARD.** Submit electronic applications through the FedConnect portal at [www.fedconnect.net](http://www.fedconnect.net). Information regarding how to submit applications via Fed Connect can be found at [https://www.fedconnect.net/FedConnect/PublicPages/FedConnect\\_Ready\\_Set\\_Go.pdf](https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf).

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

### **2. Registration Process**

#### **One Time Registration Process**

There are several one-time actions you must complete in order to submit an application in response to this Announcement (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), and register with FedConnect). Applicants, who are not registered with CCR and Fedconnect, should allow at least 10 days to complete these requirements. It is suggested that the process be started as soon as possible.

## **SECTION V - APPLICATION REVIEW INFORMATION**

### **A. CRITERIA**

#### **1. Initial Review Criteria**

##### **Application Award Eligibility**

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement.

#### **2. Merit Review Criteria**

Applications shall be reviewed on curricula proposed as well as the commercialization planning for the Training Program(s) developed supporting efficient operation of commercial buildings advancing DOE's net-zero energy goals. Experience directly in the specific energy efficiency subject areas proposed is a plus. The ability to communicate results of this research (subject to confidentiality restrictions) is an essential part of this project. The applicant should provide demonstrated involvement in one or more national associations that provide networking and communication of educational and certification issues related to high performance and/or energy efficient buildings. Proprietary company information, software, and patent rights shall remain with the contractor subject to certain government restrictions.

Applications submitted in response to this FOA that pass the Initial Review shall be evaluated and scored for each Area of Interest applied for in accordance with the criteria and weights listed below:

##### **CRITERION 1: TECHNICAL APPROACH – 40%**

- Comprehensiveness of the approach to adequately address all topic areas identified in the applicable Area(s) of Interest. The application must identify topic area curricula that exists and those to be developed in the approach proposed.
- Comprehensiveness of approach to adequately address national building stock, building types, uses, and equipment/systems in place.
- Diversity of training format offered. Consideration will be given towards the number and quality of proposed training facilities, capacity, and capabilities; ability to offer internet-based training; and field-based training during site visits. Field-based training should provide detail of locations, building types, technologies present, and a summary of training to be conducted.

##### **CRITERION 2: TECHNICAL AND MANAGEMENT CAPABILITIES – 30%**

- Quality and completeness of the management systems proposed for the training program. Considerations will include procedures/planned approach for coordination among all participants as well as DOE.



- Clear evidence of past experience in developing similar training programs or evidence of current ability to do so. Similar training programs include programs with subject matter focused on energy efficiency of commercial buildings.
- Adequacy of applicable key personnel experience to complete the proposed training program(s). Team members will be evaluated for both technical expertise and experience in education of similar audiences.
- Commitment letters from management or other participating parties specifying minimum technical and management program support provided.

**CRITERION 3: IMPLEMENTATION AND SUSTAINABILITY PLAN – 30%**

- Likelihood of training program commercialization and sustainability after the federal funding period.
- Evidence of proposed financing, facilities availability, instructor availability, and ability to maintain curricula current in regard to emerging technologies.
- Likelihood of ability to attract, retain, and place students in jobs following certification. Details on job placement programs, partnerships with construction and building management organizations, certifying (of training) organizations, and accreditation entities should be detailed in the marketing plans.
- Adequacy of deployment goals (e.g., number of trainees, geographical coverage within a climate zone, certification pass rates) for each of the first five years of the training program offering.

**3. Other Selection Factors**

**Program Policy Factors**

These factors, while not indicators of the Application's merit, e.g., technical excellence, cost, Applicant's ability, etc., may be essential to the process of selecting the application(s) that, individually or collectively, will best achieve the program objectives. . Therefore, the following Program Policy Factors may be used by the Selection Official to assist in determining which of the ranked application(s) shall receive DOE funding support.

1. Selection of Applications which promote and enhance the objectives of the American Recovery and Reinvestment Act of 2009, P.L. 111-5, especially job creation, and/or preservation and economic recovery in an expeditious manner.
2. It may be desirable to select projects from a diversity of types and/or sizes of organizations. This includes, but is not limited to, limiting the number of applications selected from one applicant organization.
3. It may be desirable to select a group of projects which represent a diversity of methods, approaches, applications, or kinds of work. This includes, but is not limited to, consideration of ongoing projects in addition to the applications received through this FOA.
4. It may be desirable to support complementary and/or duplicative efforts or projects, which, when taken together, will best achieve the training goals and objectives.
5. It may be desirable (because of the nature of energy sources and potential energy savings, the type of projects envisioned, or limitations of past efforts) to select a group of projects with a broad or specific geographical distribution.

6. It may be desirable to select projects based upon target audiences proposed in order to provide a balanced programmatic effort and/or a variety of different technical perspectives.
7. It may be desirable to select projects for award that will complement or enhance existing or planned work identified by EERE.
8. It may be desirable to select project(s) for award of less technical merit than other project(s) if such a selection will optimize use of available funds by allowing more projects to be supported without detriment to the overall objectives of the program.
9. It may be desirable to select project(s) that reduce Federal investment and maximize corporate commitment as demonstrated by cost share levels or other resource leveraging (e.g., in-kind contributions) .

## **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 under Financial Assistance, Regulations and Guidance at <http://www.management.energy.gov/documents/meritrev.pdf>.

### **2. Selection**

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

### **3. Discussions and Award**

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

## **C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES**

DOE anticipates notifying applicants selected for award and making awards during the second quarter of Fiscal Year 2010.

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

### **A. AWARD NOTICES**

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

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

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

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

A Notice of Financial Assistance Award 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/NNSA.; (4) DOE assistance regulations at 10 CFR part 600; (5) National Policy Assurances To Be Incorporated As Award Terms; (6) Budget Summary; and (7) Federal Assistance Reporting Checklist, which identifies the reporting requirements.

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

### **B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS**

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

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR Part 600 (See: <http://ecfr.gpoaccess.gov>). Grants and cooperative agreements made to universities, non-profits and other entities subject to OMB Circular A-110 are subject to the Research Terms and Conditions located on the National Science Foundation web site at <http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp>.

#### **ARRA 2009 Award Administration Information**

Special Provisions relating to work funded under American Recovery and Reinvestment Act of 2009, Pub. L. 111-5 shall apply. Also, the Office of Management and Budget may be promulgating additional provisions or modifying existing provisions. Those additions and modifications will be incorporated into the Special Provisions as they become available.

#### **2. Special Terms and Conditions and National Policy Requirements**

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at [http://management.energy.gov/business\\_doe/business\\_forms.htm](http://management.energy.gov/business_doe/business_forms.htm). The National Policy Assurances To Be Incorporated As Award Terms are located at DOE [http://management.energy.gov/business\\_doe/business\\_forms.htm](http://management.energy.gov/business_doe/business_forms.htm).

## **Intellectual Property Provisions.**

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at [http://www.gc.doe.gov/financial\\_assistance\\_awards.htm](http://www.gc.doe.gov/financial_assistance_awards.htm). Set Number NRD-1003 will be incorporated into awards issued as a result of this announcement.

## **Statement of Substantial Involvement**

Awards under this Announcement will be cooperative agreements. The DOE Specialist and DOE Project Officer will negotiate a Statement of Substantial Involvement prior to award similar to the following:

### **RECIPIENT'S RESPONSIBILITIES:**

- Performing the activities supported by this award, including providing the required personnel, facilities, equipment, supplies, and services;
- Defining approaches and plans, submitting the plans to DOE for review, and incorporating DOE comments;
- Managing and conducting the project activities;
- Providing all deliverables specified in the award in a timely basis;
- Participating in all briefings specified in the award Statement of Project Objectives;
- Presenting the project results at appropriate technical conferences or meetings as specified by the DOE Project Officer.
- Submitting technical reports and incorporating DOE comments; and;
- Complying with all requirements associated with the ARRA.

### **DOE RESPONSIBILITIES:**

- Reviewing in a timely manner project plans, including project management, testing, commercialization, and technology transfer plans, and recommending alternate approaches, if the plans do not address critical programmatic issues;
- Participating in project management planning activities, including risk analysis, to ensure DOE's program requirements or limitations are considered in performance of the work elements. DOE shall determine progression to subsequent Budget Periods or Phases if warranted.
- Integrating and redirecting the work effort to ensure programmatic goals established by DOE EERE, in coordination with the DOE Building Technologies Program are being addressed;
- Promoting and facilitating technology transfer activities, including disseminating program results through presentations, publications, and communications with the building community and other research organizations;

- Serving as scientific/technical liaison between Awardees, industry, and other organizations (e.g., National Laboratories).

### **C. REPORTING**

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

Also see [http://management.energy.gov/policy\\_guidance/1672.htm](http://management.energy.gov/policy_guidance/1672.htm) for Recovery Act terms, conditions, and reporting requirements.

## **SECTION VII - QUESTIONS/AGENCY CONTACTS**

### **A. QUESTIONS**

Questions regarding the **content** of the announcement must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party to submit questions, and to view responses to questions. It is recommended that you register as soon after release of the FOA as possible to have the benefit of all responses. More information is available at <http://www.compusearch.com/products/fedconnect/fedconnect.asp>. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website. As the application deadline approaches, DOE cannot ensure all questions will be answered within the last five business days of the FOA posting.

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

### **B. AGENCY CONTACT**

Name: Mary Beth J. Pearse

E-mail: [MaryBeth.Pearse@netl.doe.gov](mailto:MaryBeth.Pearse@netl.doe.gov)

## **SECTION VIII - OTHER INFORMATION**

### **A. MODIFICATIONS**

Notices of any modifications to this announcement will be posted on Grants.gov and the FedConnect portal. You can receive an email when a modification or an announcement message is posted by registering with FedConnect as an interested party for this FOA. It is recommended that you register as soon after release of the FOA as possible to ensure you receive timely notice of any modifications or other announcements. More information is available at <http://www.fedconnect.net> and <http://www.compusearch.com/products/fedconnect/fedconnect.asp>.

### **B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE**

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

### **C. COMMITMENT OF PUBLIC FUNDS**

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

### **D. PROPRIETARY APPLICATION INFORMATION**

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

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

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

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

### **E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL**

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

## **F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM**

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.

### **Program Covered Under Special Protected Data**

Special Protected Data Statutes: This program is covered by a special protected data statute (but is not anticipated by DOE) and will only be considered on a case by case basis. The provisions of the statute provide for the protection from public disclosure, for a period of up to five (5) years from the development of the information, of data that would be trade secret, or commercial or financial information that is privileged or confidential, if the information had been obtained from a non-Federal party. Generally, the provision entitled, Rights in Data Programs Covered Under Special Protected Data Statutes (10 CFR 600 Appendix A to Subpart D), would apply to an award made under this announcement. This provision will identify data or categories of data first produced in the performance of the award that will be made available to the public, notwithstanding the statutory authority to withhold data from public dissemination, and will also identify data that will be recognized by the parties as protected data.

## **G. NOTICE 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.