

# **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**



**United States Department of Energy  
National Energy Technology Laboratory**

**Recovery Act - Building America Energy Efficient Housing Partnerships**

**Funding Opportunity Number: DE-FOA-0000099**

**Announcement Type: Initial**

**Catalog of Federal Domestic Assistance (CFDA) Number: 81.086**

<b>Issue Date:</b>	<b>06/29/2009</b>
<b>Letter of Intent Due Date:</b>	<b>Not Applicable</b>
<b>Pre-Application Due Date:</b>	<b>Not Applicable</b>
<b>Application Due Date:</b>	<b>08/24/2009 at 3:00:00 PM Eastern Time</b>

**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 Funding Opportunity Announcement (FOA) as possible to have the benefit of all responses. More information is available at <http://www.compusearch.com/products/fedconnect/fedconnect.asp>. [The U.S. Department of Energy/National Nuclear Security Administration \(DOE/NNSA\)](#) will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website. DOE/NNSA will not respond to questions received within 5 days of the FOA closing date. For this FOA, no response will be provided for questions received after August 19, 2009.

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**

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

Projects under this 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, (ARRA, 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 U.S. Department of Energy (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).

## B. SUMMARY

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 (BT) Program, is seeking applications for Industry Teams to implement the Building America Program's research program for new and existing homes. This Funding Opportunity Announcement also offers a limited opportunity for Industry Teams to focus on stimulating the existing home retrofit market. This FOA includes two (2) Program Areas of Interest.

Program Areas of Interest
Area of Interest 1 - Building America Teams
Area of Interest 2 – Building America Retrofit Teams

**NOTE: Applicants should apply under the Program Area of Interest that they feel best fits the majority of the effort to be performed. If applicants apply under both Program Areas of Interest, only one selection (per applicant) will be made for negotiation leading to award.**

**Area of Interest 1**, "Building America Teams," seeks Industry Teams to continue the highly effective partnerships Building America has established to implement the research and technical support program for new and existing homes. Teams selected under Area of Interest 1 will focus on new homes (roughly 75% of their effort), but also be involved in efforts to increase the efficiency gains and reduce the cost of retrofits (roughly 25% of their effort). Awards under this Area of Interest will initially be funded through the American Recovery and Reinvestment Act.

**Area of Interest 2**, "Building America Retrofit Teams," seeks Industry Teams to stimulate the existing home retrofit market through research and technical support to increase the efficiency gains and reduce the cost of retrofits. Awards under this Area of Interest will be funded entirely through the American Recovery and Reinvestment Act.

Although the Building America program is an established program with current Building America Teams, the DOE strongly encourages applications from new Teams under both Areas of Interest.

## C. BACKGROUND INFORMATION

The Building America (BA) Program is part of the Department of Energy, Energy Efficiency and Renewable Energy, Building Technologies Program (BTP). Building America homes are high quality, energy efficient homes that are healthy, durable and safe. The long term goal of Building America for new homes is to develop cost effective, production ready systems in five major climate zones that will result in zero energy homes (ZEH) that produce as much energy as they use on an annual basis by 2020<sup>1</sup>. Specifically, the subprogram goal is to reduce whole-house energy use in new homes by an average<sup>2</sup> of 50 percent through efficiency by 2015 and 70 percent through efficiency by 2018 compared to the Building America Research Benchmark, at positive or neutral cash flow.<sup>3</sup> The goal of the existing

<sup>1</sup> 70% of the 2020 residential savings are targeted to come from improvements in efficiency; the remainder from renewable energy

<sup>2</sup> The distinction between the average savings and the range of savings is important because it is not cost-effective (or even possible without wasteful over engineering) to design a net-zero energy home for every possible potential occupant. Because the range of possible occupant behavior is large, the average savings target in 2020 is 90 percent. This average will include a significant number of homes that achieve 100 percent savings, ensuring that the goal of net-zero energy homes is met.

<sup>3</sup> Net cash flow is the average annual mortgage payment for energy options minus the average annual utility bill cost savings. "Positive" means that annual utility bill cost savings are greater than the annual mortgage payment

homes subprogram is to reduce energy use in existing homes by 30% or more compared to the home's current simulated energy use. The Building America Program is also conducting research on "deep retrofits," retrofits that reduce a home's energy use by 50% or more.

Current energy savings targets (referred to as Joule Milestones in DOE nomenclature) for new homes, by climate zone, are as follows:

#### Multi-Year Joule Milestone Schedule

2009	Cold 40% Energy Savings
2010	Mixed Humid and Hot Humid 40% Energy Savings
2011	Hot Dry 50% Energy Savings
2012	Marine 50% Energy Savings
2013	Hot Humid 50% Energy Savings
2013	Mixed Humid 50% Energy Savings
2014	Cold 50% Energy Savings

These improvements are accomplished through research, development, and effective communication of key research results and system-based strategies. Research and development addresses not only system and subsystem improvements, but also improvements in construction processes and management.

Builders typically do not have the comprehensive research capabilities required to evaluate new and/or unproven technologies or construction strategies and confirm that they meet minimum requirements for successful integration into new homes. Builders traditionally avoid changes that increase risks, increase costs, have the potential to cause customer complaints, require additional training or oversight of their subcontractors, require use of new and unfamiliar suppliers, materials and/or equipment, require additional planning steps or code approvals, or have the potential to increase future home warranty costs.

Building America's systems research activities address the issues described above by providing the technical support and cost/performance documentation that builders require to accelerate their adoption and implementation of ZEH building practices and cost effective energy efficiency retrofits to existing homes. The primary implementation strategy for Building America is to form teams of architects, engineers, developers, builders, remodelers<sup>4</sup>, equipment manufacturers, material suppliers, community planners, mortgage lenders, realtors, appraisers, and contractor trades. Throughout the design, construction and/or retrofit process, these Industry Teams evaluate the interaction between the building site, envelope, mechanical systems, and energy-use factors. In many cases, systems-based cost tradeoffs allow the teams to incorporate energy-saving strategies at little or no extra cost.

Examples of system benefits include, but are not limited to, utility bill savings, contribution to whole house source energy savings (WHSES) goals, increased durability, reduced warranty and callback risks, increased comfort, reduced construction waste, increased labor productivity, increased water use efficiency, increased safety and health, and increased access to favorable mortgage and insurance agreements.

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for energy options. In other words, the increase in a 30-year mortgage payment for energy improvements is offset by the energy savings.

<sup>4</sup> In this FOA, the term remodeler includes all types of contractors that perform retrofits of existing houses to increase their energy efficiency. Included in this term are home performance contractors, home energy retrofitters, and other retrofit contractors.

Building America was started in 1995 to conduct the systems research required to implement residential energy efficiency solutions that achieve 30-100% savings on a production basis. In the last fourteen years, Building America has completed several milestones on the path to ZEH. Building America has defined the benchmark for measuring whole house source energy savings (WHSES) (see the Building America Research Benchmark at [http://www1.eere.energy.gov/buildings/building\\_america/perf\\_analysis.html](http://www1.eere.energy.gov/buildings/building_america/perf_analysis.html)). Research has been documented and published, including Houses that Work, Builder Guides, and Best Practices manuals. Building America's efforts have also helped increase the number of Energy Star Homes built, surpassing the forecast. In addition, the program has assisted the Residential Energy Services Network (RESNET) in developing the protocols for validating RESNET residential rating and residential tax credit tools.

Briefly, the primary roles of the main Building America participants are as follows. The BTP (DOE-Headquarters) is responsible for all aspects of the Building America Program, including leadership, planning, budgeting, execution, and evaluation of results. The BTP directly funds and manages all National Laboratories participating in the Building America Program. The National Renewable Energy Laboratory (NREL) serves as the technical integration manager for all BA activities. Oak Ridge National Laboratory (ORNL) and Pacific Northwest National Laboratory (PNNL) provide documentation and resource development functions for the BA Program. Funding for BA Industry Teams is provided from the BTP to NETL for obligation on awards resulting from this Funding Opportunity Announcement (FOA). NETL is responsible for all management of the Industry Team awards. The Industry Teams execute the bulk of the Building America Program. Currently, there are six Building America teams who have worked with over 500 different industry partners. These teams have been competitively selected through a series of funding opportunities.

For consistency throughout this FOA, the following terminology is defined:

**"Industry Team"** (also referred to as Building America Team) refers to all entities working toward Building America goals under the leadership of an **"Industry Team Lead."** The Industry Team Lead (also referred to as the Prime Recipient) is under award with the Department of Energy/NETL (for awards resulting from this FOA, this will be through a financial assistance instrument known as a cooperative agreement). **"Industry Team Members"** are organizations under subcontract to the Industry Team Lead, generally to assist directly in Building America research and technical assistance activities. **"Industry Partners"** are not generally under formal subcontract to the Industry Team Lead, but have agreed to participate in the Building America Program. Typical Industry Partners include developers, builders, remodelers, contractor trades, non-profit affordable housing organizations, industry trade groups, and others.

The primary use of funds by the Industry Teams is expected to be for research and technical support to builders, developers, remodelers, home owner associations (HOAs), subdivisions, municipalities, local or regional utilities and other building industry participants. Some examples of these activities include design and system analyses, performance modeling (using modeling tools such as EnergyPlus), performance rating (e.g., in accordance with the RESNET Home Energy Rating System), existing home performance audits (in accordance with the joint Building Performance Institute (BPI) and RESNET Standards), HVAC (heating, ventilation and air conditioning) load calculations (e.g., in accordance with Air Conditioning Contractors Association (ACCA) Manual J), duct sizing analyses (e.g., in accordance with ACCA Manual D), house air leakage and duct leakage testing, construction quality oversight (e.g., to ensure construction proceeds in accordance with the design), monitoring of completed houses (e.g., for energy use, indoor and outdoor temperatures and humidities, etc.), and compilation and analysis of results (e.g., as input to best practice guides and other program documentation).



Industry Partners agree to:

- Provide all construction materials and labor for building or retrofitting houses
- Evaluate their design, business, and construction practices to determine best approaches and barriers to achieving targeted source energy savings
- With Industry Team support, assure the development of adequate design/ construction documentation (e.g., plans, details, specifications, scopes of work, checklists) sufficient to understand what is planned to be built or retrofitted and provisions to verify what is built or retrofitted (e.g., signed checklists)
- Identify cost savings
- Work with Industry Teams to identify and resolve any code issues
- Re-invest cost savings in improved energy performance and product quality
- Extend their efforts from discussion of possibilities to development of solutions
- Use a design, test, redesign, and retest process to resolve technical barriers.

See [http://www.eere.energy.gov/buildings/building\\_america/](http://www.eere.energy.gov/buildings/building_america/) for more information on the Building America program.

## D. FUNDING OPPORTUNITY OBJECTIVES

The first objective of this Announcement is to make multiple awards to Industry Teams to implement the Building America Program's research program for new and existing homes. The second objective is to make one or more awards to Industry Teams to focus on stimulating the existing home retrofit market.

## E. PROGRAM AREAS OF INTEREST

**This Funding Opportunity Announcement (FOA) contains two Program Areas of Interest, as described below. Applicants must identify the Area of Interest they are applying to in the Project Narrative and identify the Area of Interest in the file name. For example if an applicant were applying to Area of Interest 1, identify the filename as Project01.pdf; if applying to Area of Interest 2 identify the file name as Project02.pdf and so on.**

You may submit more than one application. However, applicants must select and target only one (1) area of interest per application. Each application must be complete and have its own unique title on the subject line (i.e., project title and principal investigator/project director, if any).

Applicants must submit their application under the Program Area of Interest that they feel best fits the majority of the effort to be performed. If DOE determines an application fits more appropriately in a Program Area of Interest other than the one to which it was submitted, DOE will either consider the application under the more appropriate Area of Interest or will direct the Applicant to resubmit to the appropriate Area of Interest. **Do not submit identical applications under more than one Program Area of Interest.**

**Only applications that specifically address topics described in the following two program areas of interest will be accepted under this announcement.**

<b>Program Areas of Interest</b>
Area of Interest 1 - Building America Teams
Area of Interest 2 – Building America Retrofit Teams

**NOTE: Applicants should apply under the Program Area of Interest that they feel best fits the majority of the effort to be performed. If applicants apply under both Program Areas of Interest, only one selection (per applicant) will be made for negotiation leading to award.**

### **What not to Propose**

Under this FOA, DOE is not seeking applications for assistance regarding:

- funding for home improvement projects, even those focusing on energy efficiency;
- funding only for research and development (R&D) of specific building components or technologies;
- funding for construction or remodeling of houses, buildings, or developments; or,
- funding to establish financing mechanisms (e.g., revolving loan funds, grants) for retrofits or new construction.

In plain language, the Building America Program doesn't pay to build or retrofit houses; it pays to help show the housing industry how to minimize the cost of building or retrofitting to significantly increase energy efficiency.

Applications proposing such construction or single technology R&D activities will be rejected during the DOE's Initial Review as not being responsive to the objectives of the FOA. See Part V for a full description of the Initial Review and Merit Review criteria.

**Area of Interest 1**, "Building America Teams," seeks Industry Teams to continue the highly effective partnerships Building America has established to implement the research program for new and existing homes. Teams selected under Area of Interest 1 will focus on new homes (roughly 75% of their effort), but also be involved in efforts to increase the efficiency gains and reduce the cost of retrofits (roughly 25% of their effort). Awards under this Area of Interest will initially be funded through the American Recovery and Reinvestment Act.

Applications are sought from prospective Industry Teams that address the Statement of Project Objectives (SOPO) included in Appendix A of this FOA. Applications under this Area of Interest must focus on new home construction (primarily Tasks 2 through 5 of the SOPO), but may also include system engineering-based efforts to improve the energy efficient retrofit of existing homes and low-rise multi-family homes (primarily Task 6 of the SOPO).

Applications must address the full spectrum of system engineering-based Building America programmatic, research, and technical assistance activities described in the Background Information part of Section I of this FOA and the SOPO. Applications must describe how the proposed Industry Team would contribute to achieving, in specific climate zones, the Joule Milestones described in the Background Information part of Section I of this FOA.

Industry Teams must be structured so that at least 30% of the effort on a cost basis is performed by the Prime Recipient (Industry Team Lead).

A Project Management Plan (PMP) must be provided as part of the application, in accordance with the format provided in Appendix B. The Project Management Plan shall provide specific milestones, performance measures, work products, and deliverables. The Project Management Plan shall be updated for each Budget Period and more often if warranted due to significant events. Performance measures, milestones, work products, and deliverables will include program-level measures applied to all Industry Teams and specific measures for each.

- Determination of performance measures, milestones, work products, and deliverables will consider:
  - target source energy savings levels
  - Stage-Gate decision process needs
  - DOE performance measure systems (e.g., the Joule system and the Government Performance and Results Act)
  - target climate zones
  - anticipated partner accomplishments

Each Industry Team must include employees or subcontracted personnel with the following minimum skills and/or qualifications:

- a home energy rater capable of conducting hourly building performance simulation calculations according to Building America procedures;
- a degreed engineer or architect with at least five (5) years experience in residential building design;
- a professional with at least five (5) years of residential construction experience;
- a professional with at least five (5) years experience in the specification, design, and installation of HVAC systems;
- a professional with at least five (5) years experience in building science including heat and mass transfer (e.g. moisture and vapor transfer).

These skills/qualifications can not all be fulfilled by one person. Applications must include resumes or biographies of the individuals proposed to fulfill these requirements.

**Area of Interest 2**, "Building America Retrofit Teams," seeks Industry Teams to stimulate the existing home retrofit market through research and technical support to increase the efficiency gains and reduce the cost of retrofits. Awards under this Area of Interest will be funded entirely through the American Recovery and Reinvestment Act.

Applications are sought from prospective Industry Teams that address the Statement of Project Objectives (SOPO) included in Appendix C of this FOA. Applications under this Area of Interest must focus solely on energy efficiency retrofits to existing homes.

Applications must address the full spectrum of system engineering-based Building America programmatic, research, and technical assistance activities described in the Background Information part of Section I of this FOA and the SOPO. Applications must describe how the proposed Industry Team would contribute to achieving, in specific climate zones, the goal of the existing homes subprogram to reduce energy use in existing homes by 30% or more compared to the home's current simulated energy use.

Industry Teams must be structured so that at least 30% of the effort on a cost basis is performed by the Prime Recipient (Industry Team Lead).

A Project Management Plan must be provided as part of the application, in accordance with the format provided in Appendix D. The Project Management Plan shall provide specific milestones, performance measures, work products, and deliverables. The Project Management Plan shall be updated for each Budget Period and more often if warranted due to significant events. Performance measures, milestones, work products, and deliverables will include program-level measures applied to all Industry Teams and specific measures for each.

- Determination of performance measures, milestones, work products, and deliverables will consider:
  - target source energy savings levels
  - Stage-Gate decision process needs
  - DOE performance measure systems (e.g., the Joule system and the Government Performance and Results Act)
  - target climate zones
  - anticipated partner accomplishments

Each Industry Team must include employees or subcontracted personnel with the following minimum skills and/or qualifications:

- a home energy rater capable of conducting hourly building performance simulation calculations according to Building America procedures;
- a degreed engineer or architect with at least five (5) years experience in residential building design;
- a professional with at least five (5) years of residential construction experience;
- a professional with at least five (5) years experience in the specification, design, and installation of heating, ventilation, and air conditioning (HVAC) systems;
- a professional with at least five (5) years experience in building science including heat and mass transfer (e.g. moisture and vapor transfer).

These skills/qualifications can not all be fulfilled by one person. Applications must include resumes or biographies of the individuals proposed to fulfill these requirements.

## 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. EXPECTED NUMBER OF AWARDS

- Under this announcement, DOE expects to make the following number of awards for each Program /Topic Area:

Program/Topic Area	Number of Awards
Area of Interest 1 - Building America Teams	2-3 awards depending on the size of the awards
Area of Interest 2 – Building America Retrofit Teams	2-4 awards depending on the size of the awards

### C. ANTICIPATED AWARD SIZE

- The anticipated award size for projects under each Program/Topic Area in this announcement is:

Program/Topic Area	Anticipated Award Size
Area of Interest 1 - Building America Teams	<ul style="list-style-type: none"> <li>• DOE expects to fund up to \$ 5,000,000 per year for up to five years (not including cost share). Higher request levels will be considered, but applicants must justify the need for more funds.</li> <li>• DOE anticipates that each award will be in the \$31,250,000 range, including cost share, for the total project period.</li> </ul>
Area of Interest 2 – Building America Retrofit Teams	<ul style="list-style-type: none"> <li>• DOE expects to fund up to \$ 5,000,000 per two year award, not including cost share.</li> <li>• DOE anticipates that each award will be in the \$6,250,000 range, including cost share, for the total project period.</li> </ul>

### D. ESTIMATED FUNDING

Program/Topic Area	Estimated Funding
Area of Interest 1 - Building America Teams	Approximately \$10,000,000 in ARRA funds is expected to be available for the first Budget Period of the new awards. Future budget periods will be funded contingent on Congressional appropriations.
Area of Interest 2 – Building America Retrofit Teams	Approximately \$15,000,000 in ARRA funds is expected to be available to fully fund all new awards under this Area of Interest

**E. 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):  
\$ 2,500,000, including cost share

**F. PERIOD OF PERFORMANCE**

- The anticipated period of performance for projects under each Program/Topic Area in this announcement is:

<b>Program/Topic Area</b>	<b>Period of Performance</b>
Area of Interest 1 - Building America Teams	<ul style="list-style-type: none"><li>• DOE anticipates making awards that will run for up to five (5) years.</li><li>• Awards are expected to be structured with five approximately 12-month budget periods.</li></ul>
Area of Interest 2 – Building America Retrofit Teams	<ul style="list-style-type: none"><li>• DOE anticipates making awards that will run for up to two (2) years.</li><li>• Awards are expected to be structured with two approximately 12-month budget periods.</li></ul>

**G. TYPE OF APPLICATION**

**New Applications Only**

- DOE will accept only new applications under this announcement.

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

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

##### **Domestic Entities excluding Federal Agencies, FFRDC and Non Profit**

- All types of domestic 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**

- DOE seeks cost share of 20% of the total allowable cost 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 projects). The cost share must come from non-Federal sources unless otherwise allowed by law. However, DOE will accept cost share of not less than 10% except for Indian tribes or Tribal Energy Resource Groups for whom the cost share requirement is waived.

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

Federally Funded Research and Development Center (FFRDC) Contractors **are not eligible** for an award under this announcement, either as a prime recipient or as a team member.



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

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

#### **Apply at FedConnect**

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 Catalog of Federal Domestic Assistance (CFDA) and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to save 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. Letters of Intent Not Required**

- 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, Standard Form-LLL (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.

**NOTE: The content and application forms below are the same for both program areas of interest except where noted.**

#### **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 35 pages, including cover page, table of contents, charts, graphs, maps, photographs, appendices (except where noted), and other pictorial presentations, when printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right) {single spaced} with font not smaller than 11 point. **EVALUATORS WILL ONLY REVIEW THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE.**

References may be included as a demonstration of knowledge and capabilities, however, the DOE has no obligation to review or evaluate any reference. No material may be incorporated into the application by reference as a means to circumvent the page limitation. Do not include any Internet addresses (Uniform Resource Locators, 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.

**Applicants must identify the Area of Interest they are applying to in the Project Narrative and identify the Area of Interest in the file name. For example if an applicant were applying to Area of Interest 1, identify the filename as Project01.pdf; if applying to Area of Interest 2 identify the file name as Project02.pdf and so on. 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. An outline of this discussion is provided below as a guide (only) to addressing this discussion. 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.**

### **Outline for the Merit Review Discussion**

#### **Criterion 1 - System Research Approach**

At a minimum, the Applicant should discuss their approach to:

- utilizing residential, whole building system integration concepts and analysis methods including the overall value and benefits of those system concepts as seen from the perspective of builders, contractors, and consumers.

- meet the needs of the target market in a cost effective manner without major market restructuring considering potential technical, regulatory, economic, environmental, production or other issues impacting market success.
- implement research results on a production basis by builders, remodelers, contractors, developers, and manufacturers.
- develop information required for technical/design packages and training curricula that are needed to communicate research results.
- disseminate research results that are free of intellectual property restrictions, through appropriate gateways to the market and/or institutional alliances so that positive results can be replicated throughout the building industry.

### **Criterion 2 - Relevant Experience**

Applicant's should use this section to provide any additional information to address the merit review criteria that is not included in the Relevant Experience Appendix.

### **Criterion 3 - Industry Team Participation**

Applicant's should use this section to provide any additional information to address the merit review criteria that is not included in the Third Party Participation Section .

### **Criterion 4 - Applicant Roles and Capabilities**

Applicant's should use this section to provide any additional information to address the merit review criteria that is not included in the Research/Related Key/Senior Person application section.

### **Criterion 5 - Project Management & Risk Management**

Applicant's should use this section to provide any additional information to address the merit review criteria that is not included in the Project Management Plan.

- **Statement Of Project Objectives (SOPO):** The Department of Energy's, National Energy Technology Laboratory uses a specific format for the Statement of Project Objectives in its awards. **Applicants should reference the required Statement of Project Objectives for the Program Area of Interest you are interested in.**

<b>Program/Topic Area</b>	<b>SOPO Location</b>
Area of Interest 1 - Building America Teams	Appendix A
Area of Interest 2 – Building America Retrofit Teams	Appendix C

**The project narrative must address how the Statement of Project Objectives will be met. The project narrative and Project Management Plan must contain a clear, concise description of all activities to be completed during project performance and follow the structure of the SOPO.**

- **Appendices:**

**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.

**Relevant Experience Appendix:**

Provide a description of projects within the past five (5) years that:

- were based on a building science-based system approach to improving energy efficiency of residential buildings.
- involved field monitoring and evaluation of advanced, energy efficient housing technologies.
- demonstrate 1) the applicant's understanding of the housing industry; 2) the applicant's understanding of the problems existent in current construction practices; and, 3) an ability to work with builders, remodelers, developers and others in the housing industry to address the barriers to widespread adoption of new technologies, materials, equipment installation practices, and other housing-related manufacturing processes.
- involved U.S. non-profit providers of affordable housing.

This appendix will not count in the project narrative page limitation.

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**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**

A Project Management Plan is required. The template for the PMP is provided for each program area of interest. **Applicants should reference the Project Management Plan template for the Program Area of Interest you are interested in.** This plan should be prepared in Word (to facilitate future revisions), but provided in a PDF format. Save this information in a single file named “PMP.pdf” and click on “Add Attachments” in Field 12 to attach.

<b>Program/Topic Area</b>	<b>SOPO Location</b>
Area of Interest 1 - Building America Teams	Appendix B
Area of Interest 2 – Building America Retrofit Teams	Appendix D

**Participation from Third Parties**

If the Applicant proposes third party participation (i.e., a party other than the organization submitting the application), the applicant’s application should include:

1. Commitment Letters from Third Parties Contributing Cost Share - If a third party, (i.e., a party other than the organization submitting the application) proposes to provide cost share, the applicant should include a letter from the third party stating its commitment and identify the specific dollar amount of cost share. The letter should also identify the proposed type of cost share (e.g., cash, services, etc.) 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.

2. Summary Description of Third Party Partners - In addition to commitment letters from individual partners, include a summary description (e.g., a table) of the builders, remodelers, developers and other housing industry groups committed to partnering with the applicant to participate in the Building America program. Describe their commitment and the annual volume of residential housing they produce/remodel. Partners are desired that commit to building 100% of their houses, particularly whole developments, using Building America system integration principles and to performance levels of 40% or more reduced energy use (on a whole house source energy savings basis) compared to the Building America Research Benchmark. Similar commitments from remodeler partners are desired if work on existing homes is proposed (particularly for applications under Area of Interest 2). Save this information in a single file named “SummaryCLTP.pdf” and click on “Add Attachments” in Field 12 to attach.

**3. RESEARCH AND RELATED Senior/Key Person**

Complete this form before the Budget form to populate data on the Budget form. Beginning with the Project Director/Principal Investigator (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

- Provide a list of all current and pending support (both Federal and non-Federal) for the Project Director/Principal Investigator(s) (PD/PI) and senior/key persons, including subawardees, for ongoing projects and pending applications. For each organization providing support, show the total award amount for the entire award period (including indirect costs) and the number of person-months per year to be devoted to the project by the senior/key person. Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review. Save the information in a separate file and attach to the "Attach Current and Pending Support" field in each profile.

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

Complete the Research and Related (R&R) 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; automated data processing (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. NOTE: The budget justification should detail the basis of cost for each budget element proposed (e.g. estimated, actual, vendor quotes, historical, Federal Travel Regulations, company policy, etc.).

### **ARRA 2009 Additional Budget Justification Information**

Proposals shall provide information which validates that all laborers and mechanics on projects funded directly by or assisted in whole or in part by and through funding appropriated by the Act are paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by subchapter IV of Chapter 31 of title 40, United States Code (Davis-Bacon Act). For guidance on how to comply with this provision, see <http://www.dol.gov/esa/whd/contracts/dbra.htm>.

### **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 and associated budget justification 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. NOTE: The budget justification should detail the basis of cost for each budget period proposed (e.g. estimated, actual, vendor quotes, historical, Federal Travel Regulations, company policy, etc.).

### **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.

**NOTE: If your application provides for multiple PRIMARY project/performance site locations, use the Next Site button to expand the form to add additional Project/Performance Site Locations.**

### **6. 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."

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## Summary of Required Forms and Files

Your application must include the forms from the application package and other documents as shown below:

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 Merit Review Discussion, SOPO Discussion, and required appendices	PDF	Field 8
Project Management Plan	PDF	Field 12
Commitment Letters from Third Parties	PDF	Field 12
<b>RESEARCH AND RELATED BUDGET (Total Fed + Non-Fed)</b>	Form	N/A
Budget Justification, including required ARRA budget justification	PDF	Field K
<b>R&amp;R SUBAWARD BUDGET (Total Fed + Non-Fed) ATTACHMENT(S) FORM</b> , if applicable	Form	N/A
Subaward Budget Justification, including required ARRA budget justification	PDF	Field K
<b>PROJECT/PERFORMANCE SITE LOCATION(S)</b>	Form	N/A
<b>SF-LLL Disclosure of Lobbying Activities</b> , if applicable	Form	N/A

### D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS

If selected for award, DOE/NNSA 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
- Commitment Letter from Third Parties Contributing to Cost Sharing, if applicable
- Environmental Questionnaire

### E. SUBMISSION DATES AND TIMES

#### 1. Pre-applications Are Not Required

#### 2. Application Due Date - August 24, 2009, 3:00 PM

- Applications must be received by August 24, 2009, not later than 3:00 PM Eastern Time. **You are strongly encouraged to transmit your application well before the deadline (at least 48 hours).** APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.



## **F. INTERGOVERNMENTAL REVIEW**

### **Program Not Subject to Executive Order 12372**

- 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 the Federal Acquisition Regulations (FAR) Part 31.

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

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

## **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**

**NOTE: THE EVALUATION CRITERIA LISTED BELOW ARE APPLICABLE TO BOTH PROGRAM AREAS OF INTEREST.**

#### **A. TECHNICAL MERIT OF SYSTEM RESEARCH APPROACH (CRITERION 1) – 30%**

- Reasonableness of the residential, whole building system integration concepts and analysis methods proposed including the overall value and benefits of those system concepts as seen from the perspective of builders, contractors, and consumers.
- Viability and practicality of the proposed results to meet the needs of the target market in a cost effective manner without major market restructuring considering potential technical, regulatory, economic, environmental, production or other issues impacting market success.
- Extent to which research results can be implemented on a production basis by builders, remodelers, contractors, developers, and manufacturers.
- Quality and completeness of the proposed approach to develop information required for technical/design packages and training curricula that are needed to communicate research results.
- Completeness, practicality, and adequacy of plans to disseminate research results, that are free of intellectual property restrictions, through appropriate gateways to the market and/or institutional alliances so that positive results can be replicated throughout the building industry.
- Reasonableness of proposed labor hours, labor categories, travel, consultants, and subcontractors as they apply to the performance of the proposed project.

#### **B. RELEVANT EXPERIENCE (CRITERION 2) – 20%**

- Depth of the applicant's experience in management of activities or programs relevant or comparable to the Building America Program.
- Number and quality of the applicant's relevant relationships with teams of organizations involved in the residential housing industry with emphasis on energy efficient home building or improvements.

- Extent of applicable experience of the applicant and any proposed subcontractors.
- Applicant's past Federal Award performance with respect to its potential effect on accomplishment of program goals.

#### C. INDUSTRY TEAM PARTICIPATION (CRITERION 4) – 25%

- Appropriateness of proposed Industry Team Members and Industry Partners, including the number, type, and contributions of team members and partners.
- Corporate commitment to the proposed project demonstrated through team member and partner letters of commitment or other evidence.

#### D. APPLICANT ROLES AND CAPABILITIES (CRITERION 3) – 15%

- Quality of the experience and education of key personnel expected to execute the proposed project.
- The building science and system engineering expertise and experience of key personnel.
- The availability of proposed key personnel to participate in and complete the proposed project.
- The ability to communicate results and ability to form and maintain alliances with the residential construction industry.
- Adequacy (quality, availability, and appropriateness) of facilities and equipment to conduct system level, residential building research and analysis.

#### E. PROJECT MANAGEMENT, INCLUDING RISK MANAGEMENT – 10%

- Quality and completeness of the description provided of management systems that will be used in participating in the Building America program.
- Quality and completeness of the risk assessment and risk management approaches described in the required Project Management Plan.
- Clarity, completeness, and feasibility of the proposed work plan and schedule and the appropriateness of milestones and performance metrics in the work plan for gauging technical progress.

### 3. Other Selection Factors

#### Program Policy Factors

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

1. It may be desirable to select projects from a diversity of types, sizes, and/or geographic distribution of organizations.
2. It may be desirable to select a group of projects which represent a diversity of methods,

approaches, applications, or kinds of work.

3. It may be desirable to support complementary and/or duplicative efforts or projects, which, when taken together, will best achieve the research goals, objectives and/or the planned work identified by EERE.
4. 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 and not be detrimental to the overall objectives of the program.
5. 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) that exceeds 20%.
6. Selection of Applications which promote and enhance the objectives of the American Recovery and Reinvestment Act of 2009, Public Law 111-5, especially job creation, and/or preservation and economic recovery in an expeditious manner.

## **B. REVIEW AND SELECTION PROCESS**

### **1. Merit Review**

#### **Applications Subject to 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**

#### **Selection Official Consideration**

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

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

#### **Government Discussions with Applicant**

- 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**

**Selection and Award Date**

- DOE anticipates notifying applicants selected for award by 12/31/2009 and making awards by 03/31/2010.

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

### **A. AWARD NOTICES**

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

##### **Selected Applicants Notification**

- 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.)

##### **Non-selected Notification**

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

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

##### **Notice of Award**

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, including ARRA special provisions; (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>.

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

**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. These provisions can be found at [http://management.energy.gov/policy\\_guidance/1672.htm](http://management.energy.gov/policy_guidance/1672.htm).

**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).

**Statement of Substantial Involvement.** There will be substantial involvement between the DOE and the Recipient during performance of the resultant cooperative agreements.

RECIPIENT'S RESPONSIBILITIES. The Recipient is responsible for:

- 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;
- Submitting technical reports and incorporating DOE comments; and
- Presenting the project results at appropriate technical conferences or meetings as specified by the DOE Project Officer.

DOE RESPONSIBILITIES. DOE is responsible for:

- Monitoring to ensure appropriate interrelationships are maintained with other projects and recommending direction or redirection of the work as necessary.
- Reviewing in a timely manner project plans and recommending alternate approaches if the plans do not address critical programmatic issues and interrelationships with other projects;
- Reviewing in a timely manner, technical reports and other deliverables and providing comments to the Recipient;
- Reviewing and approving any proposed changes to key personnel involved in the project. Key personnel are those whose involvement in the project, either managerial or scientific, are necessary for and have a direct impact upon the project direction. *[Specific individuals will be named in this statement as it is incorporated into each award.]*
- Conducting program review meetings to ensure adequate progress and consistency with program and project objectives. Recommending alternate approaches or shifting work emphasis, if needed;
- Promoting and facilitating technology transfer activities, including disseminating program results through presentations and publications; and
- Serving as scientific/technical liaison between awardees and other program or industry staff.

## C. REPORTING

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. See Attachment E, 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/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. DOE/NNSA will not respond to questions received within 5 days of the FOA closing date. For this FOA, no response will be provided for questions received after August 19, 2009.

**B. AGENCY CONTACT**

Name:	Angela Bosley
E-mail:	Angela.Bosley@netl.doe.gov
Facsimile (FAX):	304-285-4683
Telephone (Optional):	304-285-4149



## **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."

**\*\*\*Rest of Page Intentionally Left Blank\*\*\***

## **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 United States Code (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 <http://www.gc.doe.gov/documents/patwaivclau.pdf>.

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

## **H. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES**

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

## SECTION IX - APPENDICES

Appendices applicable to this Funding Opportunity Announcement are attached as separate file(s). Applicants should reference the Appendices for the Program Area that you are interested in.

<b>Program/Topic Area</b>	<b>Appendix</b>	<b>Filename</b>
Area of Interest 1 Building America Teams	A – Statement of Project Objectives B – Project Management Plan Template	See file, Appendix A&B.doc
Area of Interest 2 Building America Retrofit Teams	C – Statement of Project Objectives D – Project Management Plan Template	See file, Appendix C&D.doc

**SECTION X - REFERENCE MATERIAL**

## Acronyms used in this Funding Opportunity Announcement

<b><u>ACRONYM</u></b>	<b><u>MEANING</u></b>
ACCA	Air Conditioning Contractors Association
ADP	Automated Data Processing
ARRA	American Recovery and Reinvestment Act of 2009
BA	Building America
BAP	Building America Program
BPI	Building Performance Institute
BT	Building Technologies
BTP	Building Technologies Program
CCR	Central Contractor Registration
CFDA	Catalog of Federal Domestic Assistance
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy, Headquarters
DUNS	Dun and Bradstreet Data Universal Numbering System
EERE	Energy Efficiency and Renewable Energy
FAR	Federal Acquisition Regulations
FAX	Facsimile
FFRDC	Federally Funded Research and Development Center
FOA	Funding Opportunity Announcement
HOA	Homeowner Association
HVAC	Heating, Ventilation, and Cooling
LBNL	Lawrence Berkeley National Laboratory
NASULGC	National Association of State Universities and Land Grant Colleges
NETL	National Energy Technology Laboratory
NNSA	National Nuclear Security Administration
NREL	National Renewable Energy Laboratory
OMB	United States Office of Management and Budget
ORNL	Oak Ridge National Laboratory
PD/PI	Project Director/Principal Investigator
PDF	Portable Document Format
PMP	Project Management Plan
PNNL	Pacific Northwest National Laboratory
R&D	Research and Development
R&R	Research and Related
RESNET	Residential Energy Services Network
SF	Standard Form
SOPO	Statement of Project Objectives
U.S.C.	United States Code

URL	Uniform Resource Locator
WHSES	Whole House Source Energy Savings
ZEH	Zero Energy Home