Opportunity Title: Residential Building Technologies
Opportunity Reference Code: EERE-RPP-BTO-2015-1203

Organization U.S. Department of Energy (DOE)

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How to Apply A complete application consists of:

- An application
- Transcript(s)
- A current Resume/CV

The Resume/CV should include:

- Applicant Information
- Work and Research Experience: List all work and research experiences beginning with current or most recent. Include the name of the employer, location, position held, and time period involved.
- Leadership Experience: List experiences (e.g., work, civic, volunteer, research) that demonstrate your leadership skills. Detail your role, type of experience, organization, location, and duration.
- Education History: List all institutions from which you received or expect to receive a degree, beginning with current or most recent institution. Include the name of the academic institution, degree awarded or expected, date of awarded or expected degree, and academic discipline.
- Honors and Awards: List in chronological order (most recent first) any awards or public recognitions. Include the name of awarding institution, title of the award or honor, and date of award or honor.

All documents must be in English or include an official English translation.

If you have questions, please send an email to DOE-RPP@orau.org. Please list the reference code in the subject line of your email.

Description **Background**

The Building Technologies Office (BTO) in the Office of Energy Efficiency and Renewable Energy (EERE) of the Department of Energy (DOE) is seeking to engage a candidate to participate as an engineering and building science research participant with the Residential Buildings Integration (RBI) Program's Building America and Zero Energy Ready Homes Programs. BTO promotes the development of energy efficient products and services, making them more accessible and affordable for building professionals and owners. BTO helps accomplish the President's goal of a 17 percent reduction in carbon emissions and a 20 percent reduction in energy use in buildings by 2020 by focusing on decreasing energy consumption in residential buildings. BTO supports research and development, accelerates the voluntary uptake, and encourages marketplace standardization of high-impact building technologies, systems and practices by building decision makers. RBI, through its Building America Program and Better Buildings Residential Programs, helps meet BTO goals by supporting applied research to help improve the stringency of the national model energy code, design and promote Zero Energy Ready

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Homes throughout the U.S., reduce the cost of residential retrofits, improve indoor quality and ventilation, and set industry standards for the installation of high efficiency products and equipment.

General

At the direction of the RBI Program Manager and other senior officials, the participant will assist the Building America Program Manager by coordinating program research and national laboratory teams, project management support, and applied research support. The prime candidate will have a background in an energy- or buildings-related field with experience in building energy efficiency, design, construction, management and technologies, and may come from industry, academic, governmental or non-governmental sectors. BTO is looking for smart and motivated candidates who are interested in tackling some of the most pressing and exciting residential buildings challenges of our time.

Project Management Support

The participant will support the Building America Research Coordinator in the management of Building America Research Teams, defining direction, budget and quality of the Teams' work and will also assist the Coordinator in managing the DOE national labs that support RBI's goals. This will include assisting the Coordinator in conducting peer reviews, merit reviews, and proposal reviews of work supported by RBI. The participant will also assist RBI technical managers with transitioning products developed under BTO's Emerging Technologies (ET) program to field demonstration and integration into the housing practices of mainstream builders and contractors.

The participant will employ engineering analysis to assist RBI program managers in developing and refining applied research approaches and deployment methods/programs to support existing and new initiatives. Specific technical areas that the participant will support include high R-wall systems, indoor air quality and ventilation, and low load HVAC technology. Generally, the participant will assist program managers with applying building science principles to building retrofits and zero energy ready home technology and systems, residential building integration and deployment approaches, as well as emerging technologies such as sensors and control systems, and coordination with the building codes and product standards programs.

These tasks require strong technical knowledge and real-world experience with building program research and program implementation, and the ability to present analytical results in a timely summary manner. Applicants will be evaluated on the basis of their professional and academic record, expertise in their field, and potential for making contributions in the area of building energy efficiency. Priority for selection will be given to applicants whose area of expertise is interdisciplinary and/or innovative and well-aligned with RBI activities. The review process will include phone and/or in-person interviews with potential candidates.

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For additional information about BTO, please visit: http://energy.gov/eere/buildings/building-technologies-office.

Participant Benefits

Selected candidates will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by DOE officials, and are based on the candidate's academic and professional background. Candidates will also be eligible to receive a health insurance allowance and reimbursement for travel expenses. Appointments are for one year. Appointments may be extended in increments of up to one year, contingent upon project needs and funding availability. The maximum length of time a participant can spend in the ORISE program is five years from his/her initial start date.

Appointment Location

This appointment is located in Washington, D.C.

Nature of the Appointment

Participants will not enter into an employee/employer relationship with ORISE, ORAU, EERE or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR) and foreign nationals.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, generic information, sexual orientation, or covered veteran's status.

Qualifications Bachelors degree in engineering requested. Applicant education and work background must be in a field related to energy efficiency in buildings, such as architecture, engineering, building science, construction management, sustainability.

The preferred candidate should possess the following skills and/or experience:

- Skill applying a broad range of engineering fields and systems associated with buildings technologies. The engineering fields include mechanical engineering, electrical engineering, systems engineering, and thermodynamics, none of which is paramount. Heat transfer, electric power systems, and electronics systems are also associated, interrelated, and support the identified engineering disciplines.
- Knowledge of energy efficiency programs, legislation, regulations, and precedents; projects in progress, trends, influences, and projections, as they relate to energy efficiency in buildings technologies.
- Skill in defining and applying analytical methods, tools, and data and information to be used in impact analysis, such as life-cycle cost

analyses, energy savings, consumer and environmental impact analyses, and manufacturer and national economic impact analysis.
- Experience in an area of particular relevance to building science and energy efficiency in buildings, such as energy efficiency market and/or technology barriers (and strategies to overcome them) faced by advancing technology for building energy efficiency and supporting implementation.
- Knowledge of strategies to achieve cost-effective energy savings in new and existing buildings, such as market engagement programs, policy and regulatory interventions, public-private partnerships.
- Experience with energy management programs and strategies for deploying programs in residential buildings.
- Understanding of the economics of energy efficiency, including payback, rate of return and net present value. Familiarity with key technologies and practices for improving energy efficiency in buildings.

Eligibility Requirements

- **Degree:** Bachelor's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Business** (1)
  - **Engineering** (8)
  - **Mathematics and Statistics** (4)
  - **Other Non-Science & Engineering** (1)
  - **Physics** (2)