

**Opportunity Title:** EERE Science and Technology Policy Fellowship-Building

Technologies Office (BTO)

**Opportunity Reference Code:** DOE-RPP-BTO-2015-1215

**Organization** U.S. Department of Energy (DOE)

**Reference Code** DOE-RPP-BTO-2015-1215

**How to Apply** A complete application consists of:

- An application - indicate on the application which project you are applying for
- A current resume/CV
- Transcripts – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate may be required to provide proof of completion of the degree before the appointment can start.

All documents must be in English or include an official English translation. If you have questions, send an email to [DOE-RPP@orau.org](mailto:DOE-RPP@orau.org). Please include the reference code for this opportunity in your email.

**Application Deadline** 3/15/2016 11:59:00 PM Eastern Time Zone

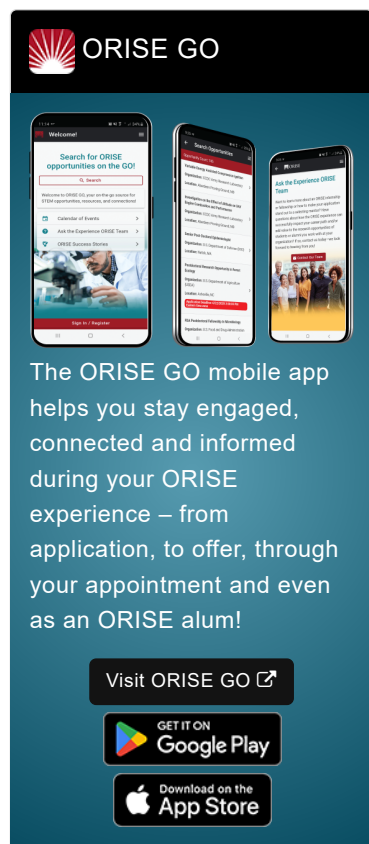
**Description** The Building Technologies Office (BTO) currently has three positions available, with different project assignments. The start date for each position should be no later than June 1, 2016.

**Project 1:**

- Maintain and update a future online software tool that predicts the potential energy savings of competing building energy technologies and approaches as a function of their performance, cost, lifetime, and applicable market. This builds upon the BTO Prioritization Tool (<http://energy.gov/eere/buildings/prioritization-tool>), which is currently in spreadsheet form and not made available to the general public
- Provide assistance, as needed, with various activities within the Emerging Technologies (ET) Program (<http://energy.gov/eere/buildings/emerging-technologies>), such as the Catalyst program (<http://www.energy.gov/eere/buildings/bto-catalyst>)
- Provide analysis in support of ongoing and future research directions.


**Project 2:**


- Provide support to the ET Program, specifically for the Sensors, Controls, & Transactional Network Sub-Program (<http://energy.gov/eere/buildings/sensors-controls-and-transactional-network>). This Sub-Program invests in R&D to advance technologies that sense, monitor, and optimize building operating conditions (i.e., heating, ventilating, and air-conditioning [HVAC], lighting, and plug loads) in order to improve energy performance and comfort, as well as support energy-related transactions outside the building envelope




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- Participate in technical reviews/assessments of proposed research and development plans, conducting technical and economic feasibility analysis, as well as evaluating at a deep technical level the progress and ongoing viability and success potential of projects toward meeting the BTO energy efficiency goals. This includes periodic technical reviews and providing rigorous technical feedback for funded R&D projects; as well as assisting in the negotiation of statements of work and project management plans with technically rigorous milestones, go/no-go decision points, stage-gates and deliverables for new awards
- Assist in the assessment of the state-of-the-art scientific literature and practice in relevant technologies and assess new opportunities for further advancement in the field and the industry. This will include contributing to completion of the program's Sensors & Controls R&D Roadmap; collaborating with other BTO Fellows to update measures based on state-of-the-art advances in sensors and controls technologies; and brainstorming program areas that leverage recent technological advances in the other four ET Sub-Programs (Windows & Envelope, HVAC, Building Energy Modeling, Solid-State Lighting) and support integration with the Office's grid modernization efforts.

### **Project 3:**

- Provide support for the HVAC, Water Heating, and Appliances Sub-Program within the Emerging Technologies Program. This Sub-Program supports research and development of pre-commercial systems, with an emphasis on heat pumping technologies.
- Assist with performing technical reviews/assessments of proposed research and development plans, conducting technical and economic feasibility analysis, as well as evaluating at a deep technical level the progress and ongoing viability and success potential of projects toward meeting the BTO energy efficiency goals. This will include periodic technical reviews and providing rigorous technical feedback for funded R&D projects; as well as assisting in the negotiation of statements of work and project management plans with technically rigorous milestones, go/no-go decision points, stage-gates and deliverables for new awards.
- Assess and stay abreast of the state-of-the-art scientific literature and practice in relevant technologies and assess new opportunities for further advancement in the field and the industry, especially for low-global-warming-potential HVAC&R systems.

### **Participant Benefits**

The selected candidate will receive a stipend as support for 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. The candidate may also be eligible to receive a health insurance allowance and reimbursement for travel expenses. This

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appointment is for one year and 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**

DOE Headquarters in Washington, D.C.

**Nature of the Appointment**

Participants will not enter into an employee/employer relationship with ORISE, ORAU, the DOE, 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.

ORAU will not discriminate against any employee or applicant for employment because of race, color, age, religion, sex, sexual orientation, gender identity, national origin, mental or physical disability, covered veteran’s status, or genetic information.

**Qualifications** Successful candidates must hold a PhD degree in science, engineering, math, architecture, or a related field prior to beginning the appointment.

*Desired experience for participant 1:*

- Buildings and energy R&D
- Computer programming languages such as Python
- National energy modeling
- National energy policy

*Desired experience for participant 2:*

- Buildings and energy R&D
- Sensors & controls R&D
- National energy policy

*Desired experience for participant 3:*

- Refrigerant R&D and/or advanced technologies to HVAC&R systems

**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** ([2](#)👁)
  - **Computer, Information, and Data Sciences** ([16](#)👁)
  - **Engineering** ([14](#)👁)
  - **Mathematics and Statistics** ([10](#)👁)

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- **Other Non-Science & Engineering** ([1](#) 👁)
- **Physics** ([1](#) 👁)
- **Social and Behavioral Sciences** ([2](#) 👁)