

**Opportunity Title:** Science, Technology and Policy Opportunity in Vehicle Technologies Analysis

**Opportunity Reference Code:** DOE-EERE-STP-VTO-2018-1300



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

**Reference Code** DOE-EERE-STP-VTO-2018-1300

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

- An application
- Transcript(s) - 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.
- A current resume/curriculum vitae (CV)

The resume/CV must include the following:

- Basic applicant Information: Name, address, phone, email, and other contact information.
- Work & 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.
- Educational 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 & 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](mailto:DOE-RPP@orau.org).

**Description** The Energy Efficiency and Renewable Energy (EERE) Science, Technology and Policy (STP) Program serves as a next step in the educational and professional development of scientists and engineers by providing opportunities to participate in policy-related projects at DOE's Office of Energy Efficiency and Renewable Energy in Washington, D.C. Participants will become part of a group of highly-trained scientists and engineers with the education, background, and experience to be part of the workforce that supports the DOE's mission in the future.

The Vehicle Technologies Office (VTO), in DOE's Office of Energy Efficiency and Renewable Energy (EERE), provides the overall planning, management, and direction necessary for a balanced program of technology research, development, test, analysis, evaluation, and communication, with a focus on providing low-cost, secure, efficient and clean energy technologies to move people and goods across America. Last year, trucks transported 11 billion tons of goods, and people traveled over 3 trillion vehicle-miles. Growing our economy requires moving more people and more goods more efficiently, saving consumers and businesses money on their transportation costs. VTO represents and provides the national leadership in advanced vehicle technologies for the formulation and execution of national energy programs. Innovations across the VTO portfolio of advanced batteries and electrification, co-optimized engines and fuels, materials for light-weighting vehicle structures, and energy efficient mobility systems and technologies are key to a maximum mobility, minimum energy future. In addition, integrated systems analysis provides a critical underpinning of data and deep understanding of the potential impacts of technologies across the VTO portfolio.

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VTO works closely with other Departmental offices to monitor, coordinate, and integrate closely related efforts such as those encompassed in the joint energy efforts with other DOE offices (e.g., the Office of Science, Basic Energy Sciences). VTO works closely with industry through partnerships that prevent duplication, accelerate progress, and focus DOE research on the most critical technology barriers.

VTO seeks a talented and committed individual who will learn and engage in the following:

- Design and management of original research applying advanced analytical tools, concepts, principles, processes, and procedures to answer transportation-related questions related to vehicle fuel economy and performance, vehicle component technology readiness, technology cost reduction, market penetration, and potential benefits, including fuel savings and greenhouse gas reductions. Vehicle technologies of interest include advanced batteries and electric drive systems, advanced combustion engines and co-optimized engines and fuels, materials for vehicle light-weighting and advanced propulsion, and energy efficient mobility technologies and systems, including connectivity and automation.
- Keeping abreast of the latest engineering technological advances in state-of-the-art applications pertaining to development of new analytical tools and theories and identify functional gaps/opportunities in current analytical tools including but not limited to big data analytics and high performance computing.
- Technical writing and publishing reports documenting the data, analysis, and resulting insights of work/projects performed.
- Collaboration with National Laboratory and headquarters contractors evaluating vehicle fuel economy and performance, technology readiness, technology cost reduction, market penetration, fuel savings and emissions reductions. Integrate these analyses to improve project management and evaluate of the potential benefits of pursuing various energy efficiency strategies (e.g., vehicle electrification, increasing combustion efficiency, and vehicle lightweighting).
- Participation with other members of the Vehicle Technologies Office in the development of related documentation for assigned activities.

### **Participant Benefits**

Selected candidates will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by EERE officials and are based on the candidate's academic and professional background. Relocation expenses, not to exceed \$5,000, incurred in relocating from the participant's current address to Washington, D.C. (if more than 50 miles from the address shown on the application), may be reimbursed. Participants will receive a travel allowance of \$10,000 per appointment year to cover travel-related expenses to scientific and professional development activities.

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

For more information about the EERE Science, Technology and Policy Program, please visit <https://www.energy.gov/eere/education/energy-efficiency-and-renewable-energy-science-technology-and-policy-program>

### **Appointment Location**

Washington, DC

### **Nature of Appointment**

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

## Qualifications

Program eligibility requirements can be found at: visit <https://www.energy.gov/eere/education/energy-efficiency-and-renewable-energy-science-technology-and-policy-program>








Favorable candidates will have the following:

- Experience in the technical analysis of advanced technologies and the use of analytical tools and techniques to evaluate the potential benefits of various strategies and technologies
- Experience in and ability to apply best practices, tools, and techniques for technology forecasting, econometric projection, and market estimation.
- Knowledge of engineering principles, concepts, standards, and methods.
- Experience in developing, managing, and evaluating projects and programs.
- Strong written and oral communication skills to present technical results and briefings to audiences of all levels.
- Confidence and curiosity to learn, ask questions, and engage with top transportation experts at the national labs, industry, and academia.

VTO seeks candidates with an educational background that includes any of the following:

- Engineering
- Physics
- Policy analysis
- Data analytics
- Mathematics

## Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Business** (1 )
  - **Computer, Information, and Data Sciences** (1 )
  - **Engineering** (11 )
  - **Mathematics and Statistics** (3 )
  - **Other Non-Science & Engineering** (1 )
  - **Physics** (2 )
  - **Social and Behavioral Sciences** (4 )
- **Age:** Must be 18 years of age