

Opportunity Title: Hydrogen and Fuel Cell Technologies Office: GREET "Train the Trainer" Fellowship

Opportunity Reference Code: DOE-EERE-STP-HFTO-2023-1800

Organization U.S. Department of Energy (DOE)

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How to Apply To apply click on *Apply* at the bottom of this page.

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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 U.S. Department of Energy's (DOE) Hydrogen and Fuel Cell Technologies Office (HFTO) Systems Analysis (SA) Program is seeking fellows as part of the GREET Train-the-Trainer Fellowship to engage in critical review of analyses, stakeholder engagement to inform analysis priorities, briefing materials, and coordination of analysis efforts across HFTO and with other DOE Offices. SA funds cross-cutting analysis that informs RD&D priorities by characterizing the value proposition of hydrogen and fuel cell technologies in emerging applications (e.g., steelmaking, chemicals, energy storage, and heavy-duty transportation) and life cycle emissions, as well as technical and cost barriers to market adoption.

> The U.S. Department of Energy (DOE) Energy announced the Energy Earthshots Initiative aimed at accelerating breakthroughs of more abundant, affordable, and reliable clean energy solutions within the decade. The first Energy Earthshot, launched June 7, 2021-Hydrogen Shot-seeks to reduce the cost of clean hydrogen by 80% to \$1 per 1 kilogram in 1 decade ("1 1 1"). Achieving the Hydrogen Shot's \$1/kg cost goal will enable new markets for hydrogen, including energy storage, steel manufacturing, clean ammonia, and heavy-duty trucks. Research programs within HFTO are guided by life cycle analysis using state-of-the-art tools, such as Argonne National Laboratory's Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) model. Development of GREET has been funded by DOE Offices over the past two decades. The tool now includes hundreds of fuel pathways and is utilized by stakeholders worldwide across government, industry, and academia. GREET is also referenced in multiple provisions within the Inflation Reduction Act, and in solicitations issued in support of the Bipartisan Infrastructure Law.

> HFTO seeks a talented and innovative individual to engage the HFTO GREET "Train the Trainer" Fellowship. This Fellowship will last one year, with the opportunity to renew for additional years at the discretion of the sponsoring office. Learning opportunities include the

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following:

- You will be trained in the use of GREET to conduct life cycle analyses of hydrogen, biofuel, or vehicle technologies.
- You will gain experience providing briefings and developing training materials on the use of GREET for external stakeholders.
- You will learn and engage in critical aspects of HFTO's mission mainly collaborating on Hydrogen Shot related activities, conducting technical reviews of Hydrogen Shot projects funded by the HFTO, drafting key documents summarizing program strategy and accomplishments, and technoeconomic analysis to inform program target-setting.
- Under guidance of a mentor, you will organize workshops and conferences to solicit feedback from expert stakeholders on program direction and strategy, identify priority areas of research for future program activities, and give presentations at technical conferences and events to solicit stakeholder feedback on program activities.
- You will gain a comprehensive understanding of key principles associated with life cycle analysis, and best practices being developed by organizations such as the International Partnership for Hydrogen in the Economy (IPHE) and the International Standards Organization (ISO).
- You will gain a robust understanding of how to use the GREET model to conduct analyses of user-defined hydrogen systems, including hydrogen production, infrastructure, and end-use.
- You will build strong communication skills through the development and delivery of briefing materials and training materials intended to enable external stakeholders (e.g. in industry) to utilize GREET for user-defined simulations.
- You will learn about the performance of state-of-the-art hydrogen technologies, and how systems can be designed to enhance decarbonization potential.

These activities may be carried out in collaboration with teams of multi-level federal employees, other participants, support service contractors, and experts from national laboratories.

Participant Benefits

Selected participants 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.

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

Appointment Location

Washington, D.C.



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Nature of Appointment

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. The initial appointment period will be for one year, with the possibility to extend the appoint for additional years at discretion of the mentor and sponsoring office.

- Qualifications You must be currently pursing or have completed requirements for a Master's Degree or Doctoral degree, or have completed all requirements for the degree by the anticipated start date of the appointment.
 - You must be a U.S. Citizen or Lawful Permanent Resident (LPR)

Program eligibility requirements can be found

at: https://www.energy.gov/eere/education/energy-efficiency-and-renewable-energy-science-technology-and-policy-program

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)
- 1 Letter of Recommendation

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.



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If you have questions, please send an email to DOE-RPP@orise.orau.gov and list the reference code [DOE-EERE-STP-HFTO-2023-1800] in the subject line of your email

- Eligibility Citizenship: LPR or U.S. Citizen
- Requirements
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- Discipline(s):
 - Chemistry and Materials Sciences (<u>12</u>)
 - Communications and Graphics Design (2.)
 - Computer, Information, and Data Sciences (17. 1)
 - Earth and Geosciences (21 (19)
 - Engineering (<u>27</u> ^(©))
 - Environmental and Marine Sciences (14 (14)
 - Life Health and Medical Sciences (<u>48</u>)
 - Mathematics and Statistics (<u>11</u>)
 - Physics (<u>16</u> [●])
 - Science & Engineering-related (2.)
 - Social and Behavioral Sciences (28.)
- Age: Must be 18 years of age