Opportunity Title: Office of Electricity - Grid Controls and Communications Division
Opportunity Reference Code: DOE-STP-OE-2024-0003

Organization U.S. Department of Energy (DOE)

Reference Code DOE-STP-OE-2024-0003

How to Apply Click on *Apply* below to start your application.

Application Deadline 2/10/2025 3:00:00 PM Eastern Time Zone

Description The U.S. Department of Energy (DOE) Science, Technology, and Policy Program is designed to provide opportunities for students, postgraduates, and faculty to participate in programs, projects, and activities at the Department. Fellows will receive hands-on experience that provides an understanding of the mission, operations, and culture of DOE. As a result, fellows will gain deep insight into the federal government's role in the creation and implementation of energy technology policies; apply their scientific, policy, and technical knowledge to the development of solutions to issues of importance to the DOE and continue their education and involvement in areas that support the DOE mission either in a technical or policy-related appointment.

About the Office of Electricity

The mission of the Office of Electricity (OE) is to lead the Department of Energy's research, development, and demonstration programs to strengthen and modernize our nation's power grid so that our nation maintains a reliable, resilient, and secure electricity delivery infrastructure. OE's vision includes working closely with industry and other stakeholders to drive technological and operational advancements that ensure that every American home and business has reliable access to affordable energy, and that the U.S. sustains its global leadership in energy transformation.

About the OE Grid Controls and Communications Division

The Grid Controls and Communications (GCC) Division manages research, development, and demonstration programs aimed at modernizing the Nation’s electricity delivery system including secure communications, controls and protection systems. The Division is responsible for engineering end-to-end systems for communications, grid modeling, measurement and controls, and operations and planning.

OE is seeking ORISE DOE-STP Fellows to participate in its missions of pioneering advanced technologies to transform the nation’s electric grid. OE develops cutting-edge technologies to make the nation’s electricity system more reliable, resilient, secure and affordable.

For more information about the Office of Electricity, please visit Join Our Team | Department of Energy

What Will I be Doing?

Fellows with the OE Grid Controls and Communications Team can expect to:

- Learn to review projects for technical merit and ensuring outcomes meet expectations, goals and impact.

- Participate in the technical development for workshops related to grid modernization including infrastructure interdependencies.
- Collaborate on written products, including reports, blog posts, technical bulletins, and peer-reviewed papers.
- Provide research support for R&D roadmap development and quick-turn information requests.
- Participate in program support activities such as data collection, tracking, and technical engagements.
- Engage with other DOE Program Offices, federal agencies, and external stakeholders

The OE Grid Controls and Communications Division has several projects available for fellows to gain hands-on experience and developmental opportunities under the guidance of an OE mentor. Projects may include:

Grid Cybersecurity and Communications Team

- Participating within the grid cybersecurity and communications security technology R&D programs, including learning relevant project management skills, and gaining a deeper understanding of cutting-edge information security approaches for the grid system.
- Assisting with coordination of artificial intelligence (AI) activities, including participating in the DOE Artificial Intelligence Working Group and tracking OE AI efforts.

Grid Modeling Team

The fellow will participate in either the North American Energy Resilience Model (NAERM) or the Advanced Grid Modeling (AGM) portfolios. Projects may include:

- Learning how to coordinate the development of the North American Energy Resilience Model (NAERM), including advising on software development best practices.
- Participating in a variety of advanced grid modeling and analytics projects.
- Assisting with assessments on current state of grid modeling technologies and support the development of a program strategy.

States Programs

The fellow will participate in the State and Regional Outreach Program and will participate in the interactions and contracts with OE regional partnerships. Projects may include:

- Learning to coordinate partnerships with the National Associations for energy stakeholder groups.
- Learning to coordinate regional partnerships with the National Laboratories.

Grid Controls Team

The fellow will participate in the Grids Controls Team. Projects may

include:

- Participating within the Transmission Reliability program, focusing on measurement, standards, and utility digitization technical support.
- Participating in the Dynamic Controls program integration to the grid edge and distributed energy resource into systems and operations.

Fellow Provisions

Selected candidates will receive a stipend. Amounts are determined by DOE officials, based on the candidate's academic and professional background, starting at approximately:

- Bachelor's degree: $70,000
- Master's degree: $80,000
- PhD: $100,000

Fellows are eligible for health insurance benefits through the ORISE network provider. OE will provide a health insurance benefits allowance towards the Fellow's benefits cost, up to the cost of the ORISE network provider premium cost.

Fellows will also receive travel and training allowances to support professional development activities.

Appointment Location

Washington, DC. The option to participate remotely may be available in some cases.

Duration of Appointment

Fellowships are initially for one year in length and may be renewed yearly. Extensions are determined by OE and are based on the project needs, availability of funds, and fellow interest and availability.

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.

Qualifications Applicants must have completed their Bachelor's, Master's, or Doctoral degree within the last 5 years. If it has been more than 5 years since the receipt of the degree, to be considered the applicant must have an academic background and experience and must be seeking to gain new knowledge/experience to expand career opportunities or to advance professionally.

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Ideal Fellows will have:

- Strong written and oral communication skills to present technical results and briefings to audiences of all levels and engage with diverse stakeholders.
- Skills in developing, organizing, and/or evaluating projects and programs.
- Confidence and curiosity to learn, ask questions, and engage with top technology experts at the national labs, industry, and academia.
- An interest in being part of a multi-disciplinary, fast-paced environment.

Preferred Academic Disciplines:

- Computer, Information, and Data Sciences (e.g. Networks and Communications, Human Computer Interaction)
- Engineering (e.g., Computer, Systems, Electrical/Electronic, Energy, Industrial, Materials Sciences, or Mechanical Engineering)
- Other Non-Science & Engineering (e.g. Public Affairs, Risk Analysis)
- Social and Behavioral Sciences (e.g., Political Science and Government, Public Policy)
- Physics (e.g. Applied Physics, Physics General)

How to Apply

A complete application consists of:

- Zintellect Profile and responses to opportunity specific questions
- Transcripts/Academic Records - 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/CV, including academic history, employment history, and relevant experiences (*see below for instructions).
- One Recommendation - Applicants are required to provide contact information for one recommender in order to submit the application. You are encouraged to request a recommendation from professionals who can speak to your abilities and potential for success, as well as your scientific capabilities and personal characteristics. Recommendation requests must be sent through the Zintellect application system. Recommenders will be asked to complete a recommendation in Zintellect. Letters of recommendation submitted via email will not be accepted.

*All documents **must** be submitted via Zintellect in order to be considered and must be in English or include an official English translation. Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.*

*The resume/CV must include the following:

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- 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.

If you have questions, please send an email to DOE-RPP@orise.orau.gov. Please list the reference code for this opportunity in the subject line of your email: DOE-STP-OE-2024-0003

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Point of Contact Alyson

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Business** (4)
  - **Chemistry and Materials Sciences** (12)
  - **Communications and Graphics Design** (2)
  - **Computer, Information, and Data Sciences** (17)
  - **Earth and Geosciences** (21)
  - **Engineering** (27)
  - **Environmental and Marine Sciences** (14)
  - **Life Health and Medical Sciences** (51)
  - **Mathematics and Statistics** (11)
  - **Other Non-Science & Engineering** (13)
  - **Physics** (16)
  - **Science & Engineering-related** (2)
  - **Social and Behavioral Sciences** (29)
- **Age:** Must be 18 years of age