

**Opportunity Title:** Opportunity at DOE Office of Fossil Energy and Carbon Management

**Opportunity Reference Code:** DOE-STP-FECM-2024

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

**Reference Code** DOE-STP-FECM-2024

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

The application will remain open and additional selections may be made throughout the calendar year.

**Description** The U.S. Department of Energy (DOE) Science, Technology and Policy Program is designed to provide opportunities for 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 the 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 role.

The Office of Fossil Energy and Carbon Management (FECM) is seeking motivated students, postgraduates, and faculty to participate in projects at the forefront of the clean energy transition, helping to address the climate crisis through a 12-month fellowship with FECM. FECM plays an important role in providing solutions that address the climate crisis. This includes working to minimize the climate and environmental impacts of fossil energy and key industrial processes to help achieve net-zero emissions across the United States economy. The office works to achieve that mission in ways that benefit communities, provide high-wage jobs, and support domestic energy, industry, and manufacturing. The overall focus is to ensure the nation's energy security, build sustainable supply chains, and significantly accelerate reductions in greenhouse gas emissions—all at the same time.

The Office of Carbon Management's research priorities include point source carbon capture, carbon dioxide (CO<sub>2</sub>) removal, carbon dioxide conversion into products, carbon transport and storage; hydrogen production and use coupled with carbon management; and policy, analysis, and engagement activities. These priorities are critical to reducing CO<sub>2</sub> emissions from the power and industrial sectors, as well as hard to decarbonize industrial sectors and legacy emissions in the atmosphere. As a global leader in the research, development, and demonstration of carbon management technologies, FECM is also working on developing and deploying low-carbon supply chains like cement and concrete, steel, paper, fuel, chemicals, and other important products.



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The Office of Resource Sustainability's research priorities include reducing emissions from natural gas supply, delivery, and storage infrastructure, reducing the surface and subsurface risks and impacts from oil and natural gas development, and developing technologies and practices that allow for the use of our nation's natural gas resources while meeting climate goals. The Office of Resource Sustainability is also developing technologies to transition to a hydrogen economy by improving the efficiency and effectiveness of the proven technologies for hydrogen production from natural gas, transportation, and storage and working to identify and remediate super-emitters, including sources of flaring and abandoned wells. The office develops technologies and deploys regional initiatives to monitor and reduce methane emissions from fossil fuel infrastructure including coal, oil, and gas. Additional areas of focus for the office include: working to advance Critical Minerals, Rare Earth Elements (REE), and Mine Remediation by Improving REE separation/recovery technologies to manufacture products from CO<sub>2</sub> and carbon ores and to address current market and process economics, and advancing R&D to address abandoned mines.

The Office of Operations drives the development of FECM Strategic Vision, functional alignment in support of mission priorities, cross-cutting engagement strategies, and the leveraging of artificial intelligence (AI) to accelerate technological advancement and improve the efficiency of business processes. Research priorities in Operations are focused on articulating FECM's regional support for the development of clean energy and industrial economies, applying the latest developments in AI to advance FECM R&D initiatives, streamlining internal processes, and increasing the use of data analytics in support of decisions relating to information technology, cybersecurity, workforce management, financial management, and environment, security, safety and health functions.

For more information about the Office of Fossil Energy and Carbon Management, please visit <https://www.energy.gov/fecm/office-fossil-energy-and-carbon-management>

### **Participant Benefits**

As an ORISE participant, you will:

- Gain insight into the Federal government's role in the creation of clean energy technology research and development.
- Contribute to a project, or projects, related to energy and climate change policies by applying scientific and technical knowledge.
- Continue your education and involvement in areas that

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support the DOE mission either in a technical or policy-related area.

- Become part of a team and be mentored by highly trained staff that support research, development, demonstration, and deployment of carbon management technologies and infrastructure to reduce carbon emissions and other environmental impacts of fossil fuel production and use.

A stipend will be based on appointment level and commensurate with qualifications:

- **Bachelor's or Associate Students:** Stipend starting at \$30,000.
- **Bachelor's Degree | Master's Students or Degree | Doctoral Students:** Stipend starting at \$50,000.
- **Doctoral Degree:** Stipend starting at \$75,000.
- **Faculty:** Selected applicant will receive a stipend starting at \$100,000.

FECM will provide a supplemental stipend to offset the costs of health insurance. Participants are eligible to purchase health insurance plans offered through ORISE. Participants may receive an allowance for education and/or scientific activities as approved by FECM. Travel expenses may be approved.

### Appointment Information

The initial appointment can be for one year or less. Appointments may be renewed upon recommendation of FECM contingent on the availability of funds for up to an additional four years.

Appointments will be made for the following locations:

- Washington, D.C.
- Germantown, MD
- Remote appointments may be approved.

### Nature of the Appointment

The participant 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.

### Qualifications

Participants must be a U.S. Citizen and fall into one of the following categories:

- **Student:** Candidate must be an undergraduate or graduate student enrolled in an accredited U.S. college, university, technical institute, or must be in an institution approved by FECM. Part-time students may be considered with sponsor approval.
- **Postgraduate:** Candidate must have received an associate's, bachelor's, master's, or doctorate 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

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an academic background and experience in a relevant field and must be seeking to gain new knowledge/experience to expand career opportunities or to advance professionally.

- **Faculty:** Candidate must be full-time faculty member at an accredited U.S. college, university or technical institute.

**A Complete Application Consists of:**



- Zintellect Profile and responses to opportunity specific questions
- A current resume/CV, including academic history, employment history, and relevant experiences
- 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.
- One Recommendation - Applicants are required to provide contact information for one recommendation 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.*

If you have questions, send an email to [DOE-RPP@orise.orau.gov](mailto:DOE-RPP@orise.orau.gov). Please include the reference code DOE-STP-FECM-2024 for this opportunity in your email.

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**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Academic Level(s):** Faculty, Graduate Students, Post-Bachelor's, Postdoctoral, Post-Master's, or Undergraduate Students.
- **Discipline(s):**
  - **Business** (11 )
  - **Chemistry and Materials Sciences** (12 )
  - **Communications and Graphics Design** (6 )
  - **Computer, Information, and Data Sciences** (16 )
  - **Earth and Geosciences** (21 )
  - **Engineering** (27 )
  - **Environmental and Marine Sciences** (14 )
  - **Life Health and Medical Sciences** (45 )

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- **Mathematics and Statistics** (10 )
- **Other Non-Science & Engineering** (13 )
- **Physics** (16 )
- **Science & Engineering-related** (1 )
- **Social and Behavioral Sciences** (27 )
- **Age:** Must be 18 years of age