Opportunity Title: Office of Electricity - Energy Storage Division
Opportunity Reference Code: DOE-STP-OE-2024-0002

Organization U.S. Department of Energy (DOE)

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

Rolling Applications

Mentors are actively seeking applicants for this opportunity and will review submitted applications for selection on a rolling basis throughout the year.

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 (OE)

The mission of the Office of Electricity 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, we 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 the clean energy transformation.

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

About the OE Energy Storage Division

The Division prepares the "next generation" of energy storage technologies to provide system reliability, resilience, and efficiency. The Division advances research to identify safe, low-cost, and earth-abundant elements for cost-effective long-duration energy storage. OE's development of innovative tools improves storage reliability and safety, analysis, and performance validation.

What Will I be Doing?

OE's Energy Storage Division is seeking DOE Science, Technology, and Policy (STP) Fellows, through ORISE, to participate in its research efforts to rapidly deploy technologies commercially and expedite grid-scale energy storage in meeting future grid demands.

The OE Energy Storage Division has several developmental opportunities

available for fellows to gain hands-on experience under the guidance of an OE mentor.

Storage Materials and Systems Team

The Storage Materials and Systems Team addresses key cost and performance challenges for storage technologies that rely on earth-abundant, domestically available storage materials, including longer-duration (10+ hour) technologies. The Team executes a diverse portfolio of energy storage materials and technologies (such as flow batteries; sodium-, zinc-, and lead-based batteries; and thermal energy storage). Additional crosscutting R&D areas include interconnections, power electronics, and power conversion systems.

Fellows will be provided an opportunity to expand their professional experience in their existing field as well as grow expertise across relevant Materials and Systems Team topic areas. Additionally, this developmental opportunity will also provide the fellow the opportunity to learn project/program management (PPM) skills, and share past PPM experiences (as appropriate), in support of the broader Materials & Systems Team portfolio by engaging with OE employees in the PPM role within the Materials and Systems Team.

Opportunities may include:

- Participating in gathering and analyzing relevant technical information (e.g., technology status, cost, R&D opportunities).
- Learning to draft internal products (e.g., report content, presentation materials).
- Learning to review R&D workplans and technical products.
- Participate in the delivery of technical summary briefings.
- Providing technical knowledge to inform growth of the R&D portfolio and design of funding opportunities.
- Attending relevant meetings/conferences/workshops and summarizing learnings/findings, as appropriate.

Storage Validation Team

As the energy storage landscape evolves, the Validation team must adapt to address emerging challenges and opportunities beyond core competitive work in long duration energy storage (ES). Opportunities may include:

- Participating in behind the meter (BTM) ES integration, modular power electronics (MPE) and conversion systems.
- Conducting research and analysis related to ES integration challenges in BTM applications for rural, low-income, and multi-family setting that address an untap market niche in the Residential and Commercial and Industrial space.
- Packaging findings to support future Notice of Funding Opportunity offerings.
- Collaborating on OE crosscut research and inform the Validation Team

of the development of a flexible hardware, software, and power electronics platform that can accommodate lithium and non-lithium-ion technologies.
- Collecting and analyzing findings and recommendations for the Validation Team based on the results from activities listed above.
- Attending relevant conferences/workshops to gather stakeholders feedback on gaps/challenges in ES and MPE.

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

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.

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:

- 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

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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-2024-0002

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):**
  - **Chemistry and Materials Sciences** (9 👁)
  - **Engineering** (9 👁)
- **Age:** Must be 18 years of age