

Opportunity Title: Postgraduate Opportunity-Energy-Water System

Opportunity Reference Code: DOE-STP-EP-SA-GEN-3006

Organization U.S. Department of Energy (DOE)

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How to Apply A complete application consists of:

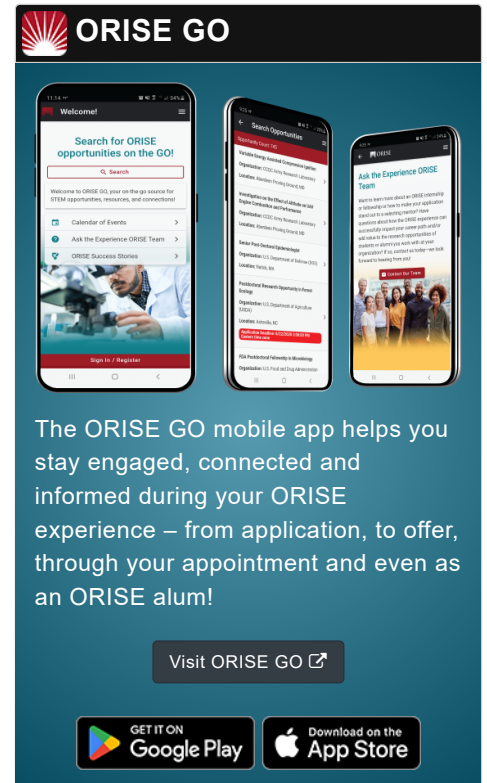
- An application
- Transcript(s) - For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate may be required to provide proof of completion of the degree before the appointment can start.
- A current Resume/CV

If you have questions, please send an email to DOE-RPP@oraui.org. Please list the reference code in the subject line of your email.

Description We are seeking two talented and committed individuals to assist the Office of Energy Systems Analysis and Integration in 1) pursuing improvements in the availability, quality, and usability of data related to the energy-water nexus; 2) laying the foundation for a federated energy-water data system incorporating data sets from DOE, other agencies, and other organizations; 3) developing model-based future scenarios that explore the interactions between energy and water systems and the implications for energy demand and portfolio mix, energy security, energy system reliability, energy system resilience, cost, and environmental impacts, particularly in regions impacted by water scarcity; 4) developing modes of analysis of multi-organizational decision-making processes; and 5) pursuing new approaches in areas such as communication of uncertainty and data visualization.

Responsibilities:

- Develop an understanding of the available data sets and gaps in areas such as the following: thermoelectric cooling systems, produced water, water for hydraulic fracturing, water for enhanced oil recovery, energy for pumping, and energy for water treatment.
- To help develop concepts to improve the accessibility and usability of data sets to support analysis of trends, decision-making behavior, etc.
- Provide input into a federated data system for energy and water.
- Provide input into model-based regional and national scenarios exploring different aspects of the energy-water nexus and its effect on the energy system.
- Analyze multi-organizational decision-making.
- Perform analyses and provide constructive feedback on



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others' analyses addressing the technology, economic, regulatory and other policy dimensions of the water-energy nexus and other energy policy topics.

- Draft memos and white papers on the above topics.
- Organize workshops on the above topics.
- Develop working relationships across DOE, with National Laboratories, and with other Federal agencies.
- Identify opportunities for productive collaboration with other analysts.

For additional information about EPSA, visit:

<http://energy.gov/epsa/articles/welcome-epsa>

This position will be located in Washington, DC.

Participant Benefits

Selected candidates will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by DOE EPSA officials, and are based on the candidate's academic and professional background. Candidates will also be eligible to receive a health insurance allowance and reimbursement for travel expenses. Appointments are for one year. Appointments may be extended in increments of up to one year, contingent upon project needs and funding availability. The maximum length of time a participant can spend in the ORISE program is five years from his/her initial start date.

Nature of the Appointment

Participants 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.

ORAU will not discriminate against any employee or applicant for employment because of race, color, age, religion, sex, sexual orientation, gender identity, national origin, mental or physical disability, covered veteran's status, or genetic information.

This is a continuous posting. Applications will be reviewed and selected as opportunities become available.

Qualifications

- A degree in engineering or economics, or policy with some experience in energy is desired.
- Strong presentation and writing skills
- Experience with data systems
- Experience with energy modeling
- Experience in environmental policy
- Strong critical thinking







Eligibility

- **Citizenship:** U.S. Citizen Only

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Requirements

- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (1 )
 - **Engineering** (8 )
 - **Environmental and Marine Sciences** (1 )
 - **Mathematics and Statistics** (1 )
 - **Other Non-Science & Engineering** (2 )
 - **Social and Behavioral Sciences** (2 )