Arizona State University Global Futures Laboratory School for Complex Adaptive Systems

Postdoctoral Researcher - carbon sequestration accounting

Location: Arizona State University – Tempe campus

The <u>Center for Negative Carbon Emissions</u> at Arizona State University is seeking a highly skilled and motivated postdoctoral researcher to assist CNCE researchers in assessing the verifiability of carbon sequestration technologies across geologic and oceanic reservoirs.

This position will work with an interdisciplinary team of physicists, geologists, engineers, oceanographers, modelers, and climate scientists, with funding from the Department of Energy (DOE) and the Advanced Research Projects Agency–Energy (ARPA-E) and Office of Fossil Energy and Carbon Management (FECM).

Specifically, the postdoctoral researcher will be responsible for supporting the assessment of the verifiability of sequestration in two different types of reservoirs: (1) sequestration in a saline aquifer in the Southwest United States and (2) ocean iron fertilization in open waters of the United States maritime zone. This effort will advance a novel carbon accounting framework designed to verify the sequestration of carbon.

The primary job duties will include:

- Lead the development of effective monitoring and verification protocols for various geologic sequestration sites.
- Analyze monitoring and verification protocols for applicability to specific site challenges, cost, and accuracy.
- Collaborate with industry partners to tailor the protocols to meet 45Q requirements.
- Assist with the development and validation of risk assessment, risk management, and mitigation strategies for commercial-scale geological storage sites.
- Support community engagement efforts across the Southwest.
- Assist with the assessment of the verifiability of ocean iron fertilization as a carbon removal pathway through the lens of carbon accounting and fit-for-purpose questions.
- Assist in translating carbon accounting terminology into oceanographic model and data variables.

This initial appointment is for one year, with the possibility of renewal contingent upon job performance and availability of funding. The expected salary range is from \$55k–\$70k depending on prior experience.

Qualifications

Required Qualifications

- Doctoral degree in earth science, or a related field, with field instrumentation and/or modeling experience
- Ability to set and manage priorities, work independently in a self-directed manner as well as collaboratively in interdisciplinary scientific teams

Desired Qualifications

• Excellent written, verbal, and visual communication skills

- Experience with MS Office tools for data analysis and visualization
- Experience in geophysical and/or oceanic methods, technical analysis, and Class VI well permitting

Application Instructions and Inquiries

Submit your application, with the following materials, to the emails listed below.

- Cover letter (up to 2 pages) describing your relevant experience and motivation for this position
- Curriculum vitae

Initial review of applications will begin immediately and continue every week thereafter until the position is filled. Inquiries about the position should be directed to Stephanie Arcusa (sarcusa@asu.edu)