

Social Science Research Fellowship

Postdoctoral Call for Applications

The NCEC Social Science Research Fellowship program is designed to foster interdisciplinary research that addresses the challenges of the new carbon economy, from the development to the deployment of carbon removal approaches. The fellowship will support a cohort of early career social scientists who (1) will conduct both independent and collaborative research deeply informed by and intertwined with CDR scholarship; and (2) whose presence in NCEC will catalyze interdisciplinary collaboration among engineers, natural scientists, and social scientists to advance a new carbon economy. We envision the social scientists investigating CDR research questions in three specific areas:

Politics, Governance & Market-Making

What are the conditions for creating a new carbon economy, from political agendas and policy instruments to the mobilization of financial and human resources, to the creation or emergence of new actors, alliances, movements, rights, and markets? What types of incentives will trigger investment in carbon removal, sequestration, and use? Who is and who should be involved in creating the rules and distributing costs and benefits of the new carbon economy? What should be the core principles of governing new carbon technologies? How might marginalized communities be affected by the transition to a new carbon economy, particularly an economy that involves revaluing long-established carbon employment and externalities? What will be key sources of opportunity or opposition to establishing policies that facilitate a new carbon economy?

Science-Policy & Science-Society Interface

Are there ways of designing carbon management research, experiments, pilots, and demonstrations that facilitate rather than hinder innovation? What are effective ways to co-produce and communicate knowledge regarding the risks and benefits of carbon management between scientists, the public and policy makers? How does the nature of negative emission technologies, especially their long-term impacts, affect research, decision-making and public opinion? What is the ongoing role of expertise from different disciplinary areas in informing decision making in a new carbon economy?

Societal Transformation

What are the social dynamics that enable or constrain the initiation of and transformation to a new carbon economy? What is the role of ideas, language, story-telling and meaning-making processes more generally in the transition away from a fossil-fuel-based economy? What are the social benefits and risks of carbon management, and how are they distributed demographically and spatially in a new carbon economy? Which human and social variables affect the ability to scale up carbon management technologies? What are key sources (individuals, institutions, groups, organizations) of leadership in social-economic transformations? What are the professional, educational, and labor-market implications of developing a new carbon economy? How will carbon management change human understanding of important activities and experiences, e.g., work, identity, travel, or nature?

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The New Carbon Economy Consortium (NCEC) is requesting applications for Postdoctoral Fellows in the social sciences to work with Consortium institutions on topics related to the transition to an economy that sequesters more carbon than it emits. The Consortium is building a knowledge enterprise that includes the scholarship needed to understand and facilitate the development of approaches that remove, store and use atmospheric carbon and explore the critical intersection between such advancements and the social sciences like economics, political science, sociology, human geography, with special attention to justice, equity, diversity, and inclusion. NCEC seeks applications from scholars across a broad spectrum of social science disciplines and perspectives, including perspectives on how CDR technologies can be scaled equitably and safely.

The NCEC Social Science Research (SSR) Fellowship program is funded by the Alfred P. Sloan foundation to bring social science research to bear on carbon management. Arizona State University's Julie Ann Wrigley Global Futures Laboratory serves as the Secretariat for NCEC and the Principal Investigator for this grant.

Salary

\$70,000, with host University benefits and grant-related travel funding. The fellowship will provide support for two years from June 1, 2021- May 31, 2023, dependent on evaluation of year one performance.

Expectations

The cohort of four NCEC SSR Fellows will be expected to perform independent and collaborative research as well as participate in quarterly workshops, NCEC annual meetings and co-lead NCEC working groups. NCEC SSR Fellows will be responsible for producing articles for submission to relevant journals, presenting their research at NCEC meetings and academic conferences and contributing to including policy briefs. In addition to having mentors at their host university, Fellows will have access to the breadth of expertise represented in the Consortium and will be expected to collaborate with NCEC investigators and other fellows.

Qualifications

Completion of PhD more recently than 2017, with a preference for candidates for whom this would constitute their initial postdoctoral position.

Key Dates

Application review will begin January 25, 2021 with anticipated start date June 1, 2021.

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Submission Requirements

In addition to a cover letter, CV and contact information for 3 persons who can provide letters of reference, candidates are expected to provide a research project proposal (up to three pages) that addresses the following questions:

1. What is the problem statement and/or hypothesis that will be addressed during the fellowship?
2. How does this research relate to other topics in CDR?
3. How will the proposed research integrate social science with natural science or engineering to ensure CDR development and deployment are informed by on-the-ground realities and the human and social dimensions of the work?
4. If the aims of the proposed research are achieved, how will scientific knowledge, technological capability, and/or practice or societal outcomes be improved?

Although not required, candidates are encouraged to identify researchers, centers and/or institutions within the Consortium as potential hosts and mentors. A list of potential sponsors and their research interests can be found here.

Additional Information

ASU and NCEC institutions are EO/AA employers and intend to support and foster a culture of inclusiveness. Diversity within the NCEC is strong with public, private, minority serving institutions and HBCU members. Each institution has a profound commitment to the inclusion of minorities and gender diversity in research. The intent of the fellowship is to integrate diverse disciplines and foster an inclusive intellectual and professional cohort of scholars. This goal will be facilitated by social science mentors and scholars who have been trained in team science and awareness of cultural differences.

The New Carbon Economy Consortium currently includes Arizona State University, Carbon 180, Colorado State University, Columbia University, Cornell University, Howard University, Lawrence Livermore National Lab, National Renewable Energy Lab, Purdue University, University of British Columbia, University of California Berkley, Global CO2 Initiative, University of Wyoming, Worcester Polytechnic Institute. Please review NCEC Innovation Plan for more information on the work of the Consortium.

Eligibility

Criteria for Ranking Candidates:

Candidates must have received a Ph.D. in the social sciences, after June 1, 2017 but prior to commencement of the Fellowship period, in the fields of economics, political science, behavioral science, law, geospatial planning, science communication, or other relevant social sciences.

**Academic
Accomplishment**

Are the applicant's academic record and research experience relevant to the topic of proposed research? Does the applicant have the potential and commitment to develop as an independent and productive researcher?

**Alignment With
Consortium
Research**

Is the research proposal well-conceived, with a clear problem statement and/or hypothesis to be tested; a data-gathering, management, and analysis strategy; and a clear understanding of how the research relates to other CDR research and broader new carbon economy development? Is there evidence of a potential match between the research interests of the applicant and a Consortium institution and mentor? Does the applicant demonstrate any experience with or understanding of the opportunities and challenges of conducting social science research in collaboration with natural scientists and engineers?

Significance

Does the proposed research project address an important problem or crucial barrier in one of the three thematic areas? If the aims of the proposed research are achieved, how will scientific knowledge, technological capability, and/or practice be improved?

**Selection
& Steering
Committee**

Dr. Peter Schlosser	PI, Vice President and Vice Provost ASU Julie Ann Wrigley Global Futures Laboratory
Dr. David Guston	Co-PI, Associate Vice Provost for Discovery, Engagement and Outcomes ASU Julie Ann Wrigley Global Futures Laboratory
Noah Deich	Executive Director Carobon180
Dr. Jennifer Wilcox	Presidential Distinguished Professor of Chemical Engineering and Energy Policy Department of Chemical and Biomolecular Engineering, School of Engineering and Applied Science, Kleinman Center for Energy Policy, and Weitzman School of Design, University of Pennsylvania
Dr. Manjana Milkoreit	Assistant Professor Department of Political Science at Purdue University
Dr. Michael B. Gerrard	Andrew Sabin Professor of Professional Practice Columbia Law School

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**Review
Process**

The NCEC SSR Fellowship Steering Committee, identified above, will conduct the initial review, ranking the candidates and forwarding the top-ranked ones to NCEC institutional representatives for consideration by host faculty. Host institutions will then send their ranking of desirable candidates back to the Secretariat for consolidation. The Steering Committee will finalize the placement and assignment of candidates. Throughout this process, every effort will be made to ensure the diversity of candidates, diversity of research topics, and methods.

**Fellowship
Program
Milestones**

NCEC Meeting – working session on Integrating Social Sciences	Oct. 2020
Commencement of Grant and Announcement of Fellows Program	Nov. 2020
NCEC Annual Meeting and Social Science Working Session	Dec. 2020
Opportunity publicized and posted	Dec. 2020
Recruiting begins	Dec. 2020
Selection process completed	Feb. 2021
NCEC member virtual meeting Fellows announced and introduced	Mar. 2021
Fellows onboarded at respective institutions	June 2021
Cohort working session 1 with mentors and advisors	July 2021
Fellows research plans due to scientific review committee for input	Aug. 2021
NCEC Annual Meeting – Fellows Presentations	Oct. 2021
Cohort working session 2	Oct. 2021
ASU Winter School on the Social Studies of Emerging Technologies	Jan. 2021
NCEC Innovation Plan updated based on work of Fellows	Feb. 2022
Presentations at Annual NCEC meeting	Feb. 2022
Cohort working session 3	May 2022
Cohort research plan progress reports due	July 2022
NCEC Annual Meeting – Fellows Presentations	Oct. 2022
Cohort working session 4	Oct. 2022
NCEC member meeting for NCEC Fellowship presentations	April 2023
Summative publication and final report published	May 2023
End of Grant Period	May 31, 2023

Institution/Center	Social Scientist and NCEC Contacts	Area of Research
Arizona State University Center for Negative Carbon Emissions	David Guston (David.Guston@asu.edu) Associate Vice Provost for Discovery, Engagement and Outcomes Julie Ann Wrigley Global Futures Laboratory	Co-PI; governance of emerging technologies
Carbon180	Noah Deich , Executive Director (noah@carbon180.org)	
Colorado State University	Diana Wall , Inaugural Director, School of Global Environmental Sustainability	NCEC Liaison
Columbia University	Steven A. Cohen (sc32@columbia.edu) Professor in the Practice of Public Affairs School of International and Public Affairs	sustainability management, environmental management
Cornell University	Rebecca Slayton (Rs849@cornell.edu) Associate Professor, Department of Science & Technology Studies and Director, Judith Reppy Institute for Peace and Conflict Studies	Governance and societal transformation. How can marginalized and vulnerable communities best participate in a transition to a low or negative carbon economy?
Global CO2 Initiative University of Michigan	Prof. Kailin Raimi Ford School of Public Policy	(1) how people compare their own beliefs and behaviors to others, (2) how adopting one pro-environmental behavior affects later action, and (3) how climate change communication affects people's understanding, behaviors, and support for climate policies and technologies. In particular, she studies how members of the public perceive the processes and products of carbon dioxide removal (CDR) and carbon capture and utilization (CCU), and whether learning about these technologies affects support for policies to reduce greenhouse-gas emissions.
Howard University	Rubin Paterson , Dean College of Arts and Sciences	NCEC liaison

Institution/Center	Social Scientist and NCEC Contacts	Area of Research
Lawrence Livermore National Lab	Roger Aines Senior Scientist	NCEC liaison
National Renewable Energy Lab	William Tumas , Associate Lab Director Randy Courtright	NCEC liaison
Purdue University	Tim Filley , Director	NCEC liaison
University of British Columbia	Gregory Dipple , Professor Walter Merida , Associate Dean Research and Industrial Partnerships	NCEC liaison
University of California Berkeley	Daniel Sanchez , Assistant Specialist	NCEC liaison
University of Pennsylvania	Jennifer Wilcox Presidential Distinguished Professor of Chemical Engineering and Energy Policy, Department of Chemical and Biomolecular Engineering, School of Engineering and Applied Science, and Kleinman Center for Energy Policy, Weitzman School of Design	NCEC liaison and Grant Steering Committee
University of Wyoming	Matthew S. Henry (mhenry12@uwyo.edu) Scholar in Residence Haub School of Environment and Natural Resources School of Energy Resources/Center for Energy Regulation and Policy Analysis Jane Zelikova	Environmental humanities/ social sciences, environmental justice, just transition policies/ practices (western U.S.)