Berkeley Climate Change Network

BERKELEY CLIMATE MAP — Industry MAY 2025

We encourage your inquiries, edits, and questions at bruceriordan@berkeley.edu and 510.306.0130

First	Last	Affiliation (primary)	Summary	Selected Projects/Reports/Classes
David	Anthoff	RCNR - ERG	Anthoff studies environmental economics and climate policy, developing integrated assessment models that inform industry-related climate strategies.	
Adam	Arkin	Engineering - BioEngineering	Studying systems and Synthetic Biology, Environmental Microbiology of Bacteria and Viruses, bioenergy, Biomedicine, Bioremediation, space	Director, Center for the Utilization of Biological Engineering in Space CUBES seeks to develop low energy/mass, autotrophic and regenerable in situ resource utilizing close-loop biomanufacturing processes for production of food, medicine and incidental building materials for operation in extreme, supply-chain limited environments. Lead Scientist, ENIGMA ENIGMA is a collaborative program to develop a predictive and mechanistic understanding of terrestrial subsurface bioprocesses for the control of major mineral cycles, fate of contaminants and restoration of sediment properties under the action of microbial communities.

				Lead PI, DOE Systems Biology Knowledgebase The KBase is a collaborative, open and extensible platform for the sharing of complex heterogeneous data, tools and analyses linked to the genomes of microbes, plants and other organisms of environmental and industrial interest.
	Berkeley Sensor and Actuator Center	Engineering	John Candelaria, Executive Director This Industry/University Cooperative Research Center (I/UCRC) is devoted to interdisciplinary engineering research on micro- and nano-scale sensors, moving mechanical elements, microfluidics, materials, and processes that take advantage of progress made in integrated-circuit, biological, and polymer technologies. BSAC includes a multi-disciplinary research team of 100+ graduate students and post-doctoral researchers led by more than ten BSAC Directors from the engineering faculties of electrical, mechanical, and bio engineering at UC Berkeley and UC Davis.	BSAC Technology Seminar: The Climate Crisis is Here and Now, Damages Are Accelerating and BSAC's Skillsets Can Help.
Stephane	De la Rue du Can	LBNL	de la Rue du Can has co-authored reports on decarbonization strategies for the industrial sector, focusing on reducing emissions from the production of materials such as cement.	

	Energy Biosciences Institute	Campuswide	John Coates, Director The Energy & Biosciences Institute provides industrial sponsors access to world-class, collaborative research facilities across the energy, chemical, material sciences, data sciences, engineering, and agriculture sectors. Sponsorship opens access to our partner network of 7,500 faculty and principal investigators, and 100,000 student, postdoctoral, and professional researchers. Our team will help you to establish the most effective collaborative networks.	Research Overview: We direct and facilitate collaborative, cross-disciplinary research that leads to sustainable real-world solutions across the supply chain. Sponsors and researchers benefit from the inevitable synergies of such collaborations. The EBI's broad core research focuses on not only today's energy issues, but also those of the future generations, and the incremental steps in between. Every day, EBI researchers work to devise practical energy strategies and products that sequester carbon and shift the energy landscape while continuing to meet society's energy demands. The EBI's work focuses on three energy themes: diverse sources, unifying storage, and utilization.
Meredith	Fowlie	RCNR – ARE	Fowlie's research includes energy markets and climate change mitigation, focusing on how industrial sectors can adapt to and influence climate policies.	
Unique	Karki	LBNL	Karki conducts research to support climate resilience in the U.S. manufacturing sector, including projects on carbon abatement through energy efficiency and low-carbon fuels.	
Chengyao	Liang	Engineering, California China Climate Institute	Liang has conducted research on low-carbon pathways for China's cement industry, exploring technological advancements and policy frameworks to facilitate the transition to sustainable cement	

			production. She is also developing cutting-edge new technologies for concrete recycling.	
Jeffrey	Long	Chemistry	Long leads the Baker Hughes Institute for Decarbonization Materials, focusing on developing advanced materials for carbon capture and storage -- such as metal–organic frameworks (MOFs), -- from industrial emissions, including those from cement production. Researchers in Professor Long's group, Kurtis Carsch and Rachel Rohde have discovered a porous MOF material capable of capturing CO_2 at high temperatures typical of industrial exhaust streams, such as those from cement plants. This innovation addresses the challenge of carbon capture in high-temperature environments without the need for cooling, thereby enhancing the efficiency of CO_2 removal in cement manufacturing.	
Jonas	Meckling	RCNR	Meckling's research centers on climate and energy policy, with a particular emphasis on the political economy of industrial decarbonization and the role of industries in climate policy implementation.	
Samanvitha	Murthy	LBNL	Murthy's research encompasses load flexibility and smart products, contributing to industrial decarbonization strategies.	
Dara	O-Rourke	RCNR – ESPM	O'Rourke focuses on sustainability transitions, industrial decarbonization, environmental justice, and industrial ecology. His work examines how	Extensive work with Amazon and other companies

			industries can adapt to and mitigate climate change impacts.	
Prakash	Rao	LBNL	Serving as the Head of the Building and Industrial Applications Department at Berkeley Lab, Rao leads initiatives aimed at enhancing energy efficiency and reducing greenhouse gas emissions in industrial settings.	
Sarah	Smith	LBNL	Smith's work includes analyzing energy efficiency and emissions reductions in industrial processes.	
Nan	Zhou	LBNL	Zhou is a leading expert in energy efficiency, greenhouse gas mitigation, and sustainable energy systems, with a focus on industrial applications. Her work highlights strategies for reducing greenhouse gas emissions in industries like cement manufacturing.	