

## BERKELEY CLIMATE MAP - Climate Finance and Economics APRIL 2025

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The critical importance of climate finance is reflected in the number of financial problems and solutions currently being addressed by Berkeley faculty and staff. Much of this work is led by researchers within Haas School of Business, Rausser College of Natural Resources, L&S Social Sciences and the Goldman School of Public Policy. Current

- Social cost of carbon
- Economic impacts on agriculture, health and environment
- Quantifying economic damages from climate change
- Peaker plants vs. batteries
- Impacts on residential electricity and natural gas use
- Markets, governance and social pre-conditions
- Inequality of resources and power that impede social progress
- Renewable energy economics
- Economic policies for reducing greenhouse gases
- Retail electricity pricing models
- Social sector leadership
- Financial mechanisms for decarbonization
- Energy market economics
- Market-based environmental regulations
- Electricity market regulations
- Utility regulation

- Subsidies for agriculture
- California consumer energy finance
- Climate risk
- Sustainable investing
- Venture capital
- Green investments
- Energy transition and subsidies
- Globalization and environment
- Economic policies impact on water, air, and climate
- Harnessing finance for climate
- Mortgage markets and climate change risk
- Disaster and displacement
- Climate finance in developing nations
- Discrimination and corruption

First	Last	Primary Affiliation	Summary	Selected Projects/Reports/Classes
David	Anthoff	RCNR - Energy Resources Group	Environmental economist who studies climate change and environmental policy. Anthoff codeveloped the integrated assessment model FUND that is used widely in academic research and in policy analysis. He has advised numerous organizations (including US EPA and the Canadian National Round Table on the Environment and the Economy) on the economics of climate change.  CEEJ Affiliate	"Researchers provide social cost of carbon roadmap"  In a recently published analysis in the journal Nature, a team of researchers lists a series of 8 measures the administration should consider in recalculating the SCC.  Using ML to assess the economic impact of climatic change on agriculture, health, energy use, etc  Climate Change Economics – ENERES C176 001 (FALL 2023)
Max	Auffhammer	RCNR - Agricultural & Resource Economics	Auffhammer's research focuses on environmental and resource economics, energy economics and applied econometrics.  CEEJ Affiliate	Climate change, the monsoon, and rice yield in India  Disco Shower or Consumption Shaming (2023)  Quantifying Economic Damages from Climate Change (2018) – Using ML to quantify climate impacts  Private and External Costs and Benefits of Replacing High-Emitting Peaker Plants with Batteries. Environmental Science and Technology. 57(12): 4992  Climate Adaptive Response Estimation: Short And Long Run Impacts Of Climate Change On Residential Electricity and

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				Natural Gas Consumption. 2022. Journal of Environmental Economics and Management. 122.
Katherine	Baird	Haas	Director, Office of Sustainability and Climate Change	Haas hosted 2025 Climate Cap Summitt, 550 students from across the country. The premier learning resource for MBA students who want to engage on climate.
	Berkeley Economy and Society Initiative (BESI)	L&S Social Sciences Social Science Matrix	Paul Pierson Director  New center at Berkeley supported by Social Science Matrix, housed in Letters and Science and funded by the Hewlett Foundation.  Climate is one of 3 key themes for new BESI. Jonas Meckling leads this work.  The Berkeley Economy and Society Initiative (BESI) champions next-generation thinking about markets, governance, and the social preconditions for developing and sustaining genuine prosperity.  In advancing a new agenda for multidisciplinary research and informed policy conversation, we stress the need to explore enduring inequalities of resources and power that frequently impede social progress.	The Climate Seminar at BESI – Spring 2024  A \$10M seed grant from the Hewlett Foundation will support a new hub for research and teaching focused on the intersection of economics and government.
Severin	Borenstein	Haas - Energy Institute at Haas	Faculty Director, Energy Institute at Haas  Research interests  • Energy Policy and Climate Change	Current research projects include the economics of renewable energy, economic policies for reducing

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			<ul> <li>Electricity Deregulation, Market Formation and Competition</li> <li>US and International Airline Competition</li> <li>Oil and Gasoline Market Pricing and Competition</li> </ul>	greenhouse gases, and alternative models of retail electricity pricing.  "Expecting the Unexpected: Emissions Uncertainty and Environmental Market Design"  Can Data Centers Flex Their Power Demands? — Severin Borenstein finds a creative and innovative approach to a sticky climate problem.
	Center for Environmental Public Policy	Goldman	David Wooley, Director  Dan Kammen, Faculty Director	Project 2025 – 4 reports on CA: Transportation, Electricity, Wind, Reconductoring
	Center for Responsible Business	Haas	Robert Strand, Executive Director  Connects students, businesses, and faculty to reimagine capitalism for a more responsible, resilient, and sustainable society.	Case studies on a wide range of climate and sustainability topics
Jenny	Chatman	Haas	Interim Dean, Haas School Business  Haas includes an extensive menu of research centers and institutes, including:  The Institute for Business Innovation The Institute for Business & Social Impact (IBSI) Center for Responsible Business The Energy Institute at Haas (EI)	

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			Cleantech to Market Berkeley Center for Economics and Politics Center for Social Sector Leadership Fisher Center for Real Estate and Urban Economics	
	Cleantech to Market (C2M)	Haas	Brian Steel, Co-Director Ana Martinez, Associate Director  Cleantech to Market (C2M)–Inspiring Climate Tech Leadership—is a partnership between graduate students, startups, and industry professionals to help accelerate the commercialization of leading cleantech solutions. In the process, C2M also	16 <sup>th</sup> Annual C2M Cleantech to Market Summit (2024)  C2M's 2023 Climate Tech Summit featured 8 companies that are forging new paths to develop critical climate and energy solutions
			develops the next generation of innovative cleantech leaders.  Startups involved in low-carbon energy, green chemistry, food, and water technologies covering both mitigation and adaptation are invited to apply into the C2M program at the beginning of each year. C2M then handpicks interdisciplinary teams of UC Berkeley grad students to help entrepreneurs identify the most viable initial markets, prospective customers and partners, funding sources, and related strategies.	
	Energy and Environment Policy Lab	RCNR - ESPM	Jonas Meckling Lab - Financial mechanisms for decarbonization	How Central Banks Manage Climate and Energy Transition Risks  State Capacity and Varieties of Climate Policy
	Energy Institute at Haas	Haas	Andrew Campbell, Executive Director	Energy Institute Blog

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			To support current and future energy sector leaders in making important decisions, the Energy Institute's approach is to focus on business and policy challenges.	The Energy Institute Working Paper Series presents new research on energy and environmental topics authored by our faculty affiliates and graduate students.
			Train the business and policy leaders of tomorrow on market, policy, and technology commercialization challenges in the energy industry.	
			Produce <u>research</u> and analysis backed by rigorous empirical evidence and the frontiers of economic research so that energy and environmental policy and business decisions are based on sound economic and business principles.	
Meredith	Fowlie	RCNR- Agricultural & Resource Economics,	Fowlie is faculty director at the Energy Institute at Haas. She co-directs the National Bureau of Economic Research (NBER), Environmental and Energy Economics Program. She has worked extensively on the economics of energy markets and the environment. Her research investigates market-based environmental regulations, the economics of air pollution, electricity market regulation, and incomplete GHG regulations. She currently serves as a Governor-appointed member of California's Independent Emissions Market Advisory Committee.	Negotiating the Clean Energy Transition: California's Experiment in Progress (video)  "Measuring and Reporting Corporate Carbon Footprints and Climate Risk Exposure – Fall 2021"  2023 UCOP Proposal: Designing Climate Policy for an Equitable and Effective Clean Energy  ENVECON 147 Economics of the Clean Energy Transition (SPRING 2023)
				Co-Chair of the Academic Senate committee exploring climate change education and research at Berkeley.

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Lee	Friedman	Goldman	Friedman's research is on a wide variety of issues, including climate change policies, utility regulation, educational finance, criminal justice policies, agricultural subsidies, and consumer decision-making. His work strives to improve the effectiveness of microeconomic policy analysis on actual public policies and practices.	Electricity Pricing and Electrification for Efficient Greenhouse Gas Emissions  Does Policy Analysis Matter?
Chris	Jones	RCNR - Energy and Resources Group	Chris Jones is Director of the CoolClimate Network, a university-government-industry partnership at Berkeley. He also serves as faculty lecturer in the Haas School of Business, and Program Chair (13th year) of the Behavior, Energy and Climate Change Conference.  Jones is a leading expert in carbon footprint analysis, the design of behavior-based programs and regional climate policy. In 2005, he published the first comprehensive carbon footprint calculator, which accounts for the greenhouse gas emissions of all transportation, energy, food, goods and services purchased by U.S. households.	CoolClimate Calculator: California Local Government Policy Tool: https://coolclimate.org  UCOP Climate Action Award: Climate Action Planning Tools: Empowering Equitable Transitions for CA Communities FUNDED  MBA/EWMBA 292T.14 - Carbon Footprint Analysis for Innovation FALL 2022
Ted	Lamm	Law - Center for Law, Energy and Environment	Lamm's work focuses on the development of state and local climate policies, transportation and building electrification, and climate-related risks.	The Mirage of Trump's State Climate Law Executive Order (2025)  The Future of California Consumer Energy Finance 2023)  Funding San Francisco Climate Action (2022)

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				Climate Risk Scenario Analysis for the California Department of Insurance (2023) A Guide to Climate Risk Scenario Analysis Design for California's Insurance Regulator  EV Equity Initiative (ongoing),
Adair	Morse	Haas - Sustainable and Impact Finance	Founding Faculty Director of the Sustainable and Impact Finance Initiative (SAIF)  Morse's research spans multiple areas of finance: climate finance and sustainable investing, household finance, discrimination and corruption, venture capital, and pension management. Her work is driven by her interest in leveling economic playing fields. Recent work includes papers on algorithmic discrimination, small business policy during the pandemic, impact and sustainable investment, pension governance, and communication from the Federal Reserve.	Fall 2023 Sustainable, Climate and Impact Investing Landscape  Spring 2024 Haas Impact Fund  Fall 2024 Climate Solutions Fund
Matthew	Potts	RCNR - ESPM	Associate Director for Sustainable Development, Blum Center for Developing Economies, where he leads an interdisciplinary lab that focuses on the co- production by human and natural systems of ecosystem services and natural pathways for carbon sequestration.  Potts is the Chief Science Officer at Carbon Direct Inc. where he leads an international science team working on decarbonizing the global economy.	2023 UCOP Proposal: Proposal for Increasing CO2 Removal in California Through Science-Based Standards and Industry Engagement  Criteria for High Quality Carbon-Dioxide Removal

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			Specifically, Dr. Potts helps clients assess high quality carbon removal from managed landscapes and works to ensure climate actions are just and equitable. He also works closely with Carbon Direct's technology team to integrate science, software, and product	Redefining "abandoned" agricultural land in the context of reforestation. Frontiers in Forests and Global Change. Rates and drivers of aboveground carbon accumulation in global monoculture plantation forests.
Robert	Reich	Goldman	Industry, Policy, Labor, Poverty & Inequality, Leadership and Social Change, Macroeconomic Policy, Social and Economic Policy	The Solutions to the Climate Crisis No One is Talking About  Robert Reich and Dan Kammen: Inequality, Climate Change and the Economy (video)
David	Roland-Holst	Goldman	Macroeconomics effects of climate change policies and green investments	Climate Change in California: Risk and Response  UCOP \$100M Climate Action LOI lead – January 2023 - Carbon-Negative Bioenergy for California's Disadvantaged Communities
Jim	Sallee	RCNR - Agricultural & Resource Economics,	Energy taxation, subsidies and economic incentives for climate action. Sallee is a public economist specializing in environmental and energy economics. His research analyzes policy design and market behavior in transportation and electricity.	Retiring Old Capital to Foster Decarbonization  Designing Electricity Rates for an Equitable Energy Transition (link)  Ongoing work includes:  The Potential of and Problems with Carbon Markets in US Agriculture Retiring Heavy-Duty Trucks

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				Price Regulation, Incidence, and the Clean Energy Transition (with Severin Borenstein and Meredith Fowlie)
				Retiring Heavy-Duty Trucks (with Mark Jacobsen)
Joseph	Shapiro	RCNR - Agricultural & Resource Economics	Shapiro's research agenda focuses on three general questions: (1) How do globalization and the environment interact? (2) What have been the effectiveness, efficiency, and equity impacts of environmental and energy policies over the last half century, particularly for water, air, and climate pollution? (3) How important are the investments that people make to protect themselves against air pollution and climate change?	Is Air Pollution Regulation Too Stringent?  Regulating Untaxable Externalities: Are Vehicle Air Pollution Standards Effective and Efficient?  Pollution Trends and US Environmental Policy: Lessons from the Last Half Century
	Social Science Matrix	L&S Social Sciences	Marion Fourcade, Executive Director, Social Science Matrix	Advanced Workshop in Climate Change Economics (video)
			Eva Seto, Associate Director, Social Science Matrix  Our purpose is captured in our name: we provide an organizational framework—a "matrix"—that supports cross-disciplinary research pursued by social scientists across the University of California, Berkeley campus and beyond.  Conducts workshops and other activities on climate change. Developed an extensive directory of Berkeley social science researchers working on climate.	Disaster and Displacement: Inequalities in Climate Migration (video)  Climate Economics Program

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	Sustainable and Impact Finance	Haas	Founding Faculty Director, Adair Morse	Mobilizing Capital to Achieve Net Zero by 2050 (March 2023)
	Initiative (SAIF)		Megan Morrice, Associate Director	Climate Solutions Fund
				Harnessing Finance for Climate – Stockholm (May 2023)
				SAIF Project: MBA Students Step Up to Help Oakland's Small Businesses
				What's the Climate Risk of Your Insurance Company? (blog)
Sarah	Vaughn	L&S Social Sciences - Anthropology	Vaughn is a sociocultural anthropologist working at the intersection of environmental anthropology, critical social theory, and science and technology studies. Her research advances understandings of climate change in the Circum-Caribbean while tracking the affective, ethical, and political components of dignity and belonging. At stake in her research are questions about the role climate change has in shaping the materiality of expertise, an ethics of (re)distribution, and narrative form.  CEEJ Affiliate	Author: Engineering Vulnerability in Pursuit of Climate Adaptation  Teaching: ANTHRO 189 - Special Topics in Social/Cultural Anthropology: Climate Change and the Senses SPRING 2024
Katherine	Wagner	RCNR - Agricultural & Resource Economics	Wagner's research focuses primarily on Environmental and Energy Economics and Public Finance. She uses a range of empirical tools to study questions related to environmental externalities, climate change, and natural resources.	

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Nancy	Wallace	Haas	Chair of the Real Estate Group and co-chair of the Fisher Center for Real Estate and Urban Economics.  Wallace is an expert in mortgages, mortgage-related securities, and other real estate topics.	Mortgage Markets with Climate-Change Risk: Evidence from Wildfires in California (2021 Seminar, Federal Reserve Bank)  2023 UCOP Climate Action Seed Grant Proposal: Helping California Communities Adapt to Wildfire: Information, Adaptation, and Risk Mitigation
Catherine	Wolfram	Haas	Energy economics, climate policy and economic implications of decarbonization	"Do Energy Efficiency Investments Deliver? Evidence from the Weatherization Assistance Program"
Nan	Zhou	LBNL	International Energy Analysis Department. Works on climate finance, particularly for developing nations transitioning to clean energy.	