



MIT CEEPR

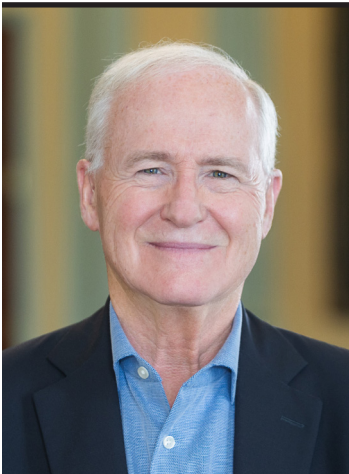
Center for Energy and
Environmental Policy Research

Spring 2025 Research Workshop

June 10-11, 2025

Royal Sonesta Boston
Cambridge, Massachusetts

BIOGRAPHIES: Speakers and Moderators



MIKE BARRETT

Massachusetts State Senator, 3rd Middlesex District
Massachusetts State Senate

Mike Barrett is the State Senator for Bedford, Carlisle, Chelmsford, Concord, Lincoln, Waltham, Weston, and large parts of Lexington.

Mike serves as Senate Chair of the Committee on Telecommunications, Utilities and Energy in the Massachusetts Legislature. Since 2018, Mike's been the chief architect of three major bills that position Massachusetts in the top rank of states responding to the climate crisis. The most recent of these, *An Act Promoting A Clean Energy Grid, Advancing Equity and Protecting Ratepayers*, eases the construction of electric power infrastructure, limits the construction of natural gas infrastructure, clears the way for installing EV chargers, promotes offshore wind, solar and battery storage projects, and does several dozen other things. The Act was signed into law in November 2024.

Mike is a graduate of Harvard College and the Northeastern University School of Law, and is a member of the Massachusetts Bar. He's married, lives in Lexington, and is the father of twin daughters.



ELAINE BUCKBERG

Senior Fellow
Salata Institute for Climate and Sustainability
Harvard University

Elaine Buckberg is a Senior Fellow at Harvard University's Salata Institute for Climate and Sustainability, former Chief Economist of General Motors, and a former senior U.S. Treasury official. She has served as an advisor to top leadership across government, corporate, and finance, using economics to inform real-world decisions and improve outcomes.

At Salata, Elaine leads research and stakeholder engagement to drive better public EV charging outcomes. She also covers industrial policy, supply chains, and geoeconomics and teaches an undergraduate seminar on EVs.



ANTJE DANIELSON

Director of Education
MIT Energy Initiative
Massachusetts Institute of Technology

Antje Danielson is the Director of Education at the MIT Energy Initiative, where she directs existing energy education programs—such as the MIT Energy Studies Minor and the Energy Fellows Program—conceives and oversees the development of new programs—such as the Future of Energy Systems online X-Series—and engages in interdisciplinary research related to transformation systems. She co-teaches energy- and climate-related classes, and leverages her extensive international network of like-minded academic and professional colleagues to accelerate climate change related capacity building.

Prior to her position at MIT, she directed the Institute of the Environment at Tufts University, where she was also an assistant professor in the Department of Public Health. Danielson's approach to finding climate solutions is systemic, interdisciplinary, collaborative, and entrepreneurial. She advances her goals through research, education, and implementation of solutions. In 1999/2000, she co-founded the car-sharing company Zipcar.

Danielson is a board member for various environmental non-profits and has also served as President of the U.S. Council for Environmental Deans and Directors. She received teaching awards from Harvard University and an Exceptional Contribution Award from Durham University.



ERICA DOWNS

Senior Research Scholar
Center on Global Energy Policy
Columbia University

Dr. Erica Downs is a Senior Research Scholar at the Center on Global Energy Policy at Columbia University SIPA, focusing on Chinese energy markets and geopolitics.

Dr. Downs has a distinguished career in Eurasian energy policy with a focus on China. She has over 20 years of experience working in the public and non-profit sectors. She previously worked as a senior research scientist in the China Studies program of the CNA Corporation, a senior analyst in the Asia practice at Eurasia Group, a fellow in the John L. Thornton China Center at the Brookings Institution, an energy analyst at the Central Intelligence Agency, and a lecturer at the Foreign Affairs College in Beijing, China. Dr. Downs has published extensively in the areas of Chinese energy policy and politics, decarbonization and geopolitics. She holds a Ph.D. and an M.A. from Princeton University and a B.S. from the Edmund A. Walsh School of Foreign Service at Georgetown University.

Dr. Downs is also a non-resident senior research scientist at the CNA Corporation, an honorary research fellow at the Centre for Energy, Petroleum and Mineral Law and Policy at the University of Dundee, a member of the advisory board of the Natural Resources Governance Institute and a former member of the editorial board of Asia Policy.



ALEX FLINT

Executive Director
Alliance for Market Solutions

Alex Flint is an expert on the convergence of politics and business, particularly related to energy and climate change. He is executive director of the Alliance for Market Solutions (AMS), a conservative nonprofit that engages directly with policymakers, the business community, and the media on policies that reduce carbon pollution and grow the economy.

Previously, Alex led the Nuclear Energy Institute's advocacy program as the senior vice president of governmental affairs for a decade. He began his career on Capitol Hill as a clerk on the Senate Committee on Appropriations and staff director of the Senate Committee on Energy and Natural Resources.

Alex has been recognized as one of Washington's top lobbyists, named one of the National Journal's top 50 people changing Washington, and included on Washingtonian magazine's list of most influential people in Washington.



SANDY GRACE

Vice President of US Policy and Regulatory Strategy
National Grid

Sandy Grace leads the development of policy and regulatory strategy for National Grid's US business.

Throughout her career in the energy and infrastructure industry, Sandy has held roles focusing on policy development, legislative and regulatory strategy, as well as transmission and microgrid investment opportunities. She spent nearly a decade in private law practice on complex commercial litigation and regulatory matters, representing and providing advice to some of the nation's largest energy companies on issues ranging from mergers and acquisitions, compliance, federal funding opportunities, and participation in wholesale energy markets. Sandy is a member of the Maryland Bar, District of Columbia Bar, Court of Appeals for the Ninth Circuit, Court of Appeals for D.C. Circuit, and the Energy Bar Association.

Sandy currently serves on the board of directors of the Chesapeake and Ohio Canal Trust, the official nonprofit partner of the C&O National Park.

Sandy received a Juris Doctor from American University Washington College of Law and Bachelor of Science in Foreign Service from the Georgetown University Walsh School of Foreign Service.



JOSHUA HODGE

Executive Director, MIT Center for Energy and Environmental Policy Research
Lecturer, Sloan School of Management
Massachusetts Institute of Technology

Joshua Hodge is the Executive Director at the MIT Center for Energy and Environmental Policy Research, Research Director at the MIT Climate Policy Center as well as a Lecturer at the MIT Sloan School of Management. His areas of expertise include domestic and international climate and energy policy, with a focus on energy transition and renewable energy policies in the United States. Joshua's recent work has included assisting rural electric cooperatives in the U.S. with decarbonization strategy. He is also acting Executive Director for the third phase of joint Harvard-MIT Roosevelt Project as well as a member of the MIT Net-Zero by 2026 Faculty Review Committee.

Before joining MIT, Joshua ran the Commodities Research and Forecasts business, Americas, at Thomson Reuters, where he managed the launch of the firm's North American power and gas forecast modeling services. Previously, Mr. Hodge was Managing Director, North America, at Point Carbon where he was the firm's first hire in the region and oversaw the launch of Point Carbon's North American products. Joshua holds an MBA from the Darden Graduate School of Business at the University of Virginia and received his undergraduate education at the University of St. Andrews (UK).

Mr. Hodge has served as a Commissioner on the Commission for Energy Use and Climate Change of the City of Somerville (MA), assisted the Museum of Science, Boston with climate change programming and mentored students at the MIT Policy Hackathon.



ELLEN HUGHES-CROMWICK

Senior Visiting Fellow
Third Way

Ellen Hughes-Cromwick is Senior Visiting Fellow for the Climate and Energy program at Third Way, a think tank in Washington DC. She built her career as Chief Global Economist at Ford Motor Company, providing critical insights on the global economy and finance. Ellen led a team developing strategy and 10-year business plans, while delivering macroeconomic analysis and forecasting that shaped production programming, long-term projections, and decisions on product cadence, volume, and pricing.

As Chief Economist at the US Department of Commerce during the Obama Administration, she advanced initiatives to improve data quality, measure the digital economy, and expand workforce development, manufacturing, trade, and investment.

As Senior Visiting Fellow, Ellen is advancing new ideas on US competitiveness in clean energy technologies, drawing on her supply chain expertise from her time at Ford. She served on the Biden Transition Team and the White House EV working group, shaping policy recommendations on critical minerals, battery components, charging infrastructure, and EV manufacturing.

She earned her master's degree in international development and Ph.D. in economics at Clark University and concluded a 6-year term on the Clark Board of Trustees in 2023.



RYAN KELLOGG

Deputy Dean for Academic Programs and Ralph and Mary Otis Isham Professor
Harris School of Public Policy
University of Chicago

Ryan Kellogg is the Ralph and Mary Otis Isham Professor and the Deputy Dean for Academic Programs at the University of Chicago's Harris School of Public Policy. He is also a Research Associate at the National Bureau for Economic Research. His research examines energy and environmental economics and policy, often with a focus on energy markets and firms' behavior. Much of Ryan's work studies how markets and public policies affect energy supply and its environmental impacts, using insights and methods from industrial organization.

Ryan teaches introductory microeconomics for undergraduate majors in public policy. He also teaches a course in energy and environmental economics for Ph.D. students. Ryan earned a Ph.D. in Agricultural and Resource Economics from the University of California, Berkeley, in 2008. Prior to his graduate studies, he worked for BP in Houston, TX and Anchorage, AK for four years as an engineer and economic analyst. Ryan earned a B.S. in Chemical Engineering and a B.A. in Economics from Rice University in 1999. He grew up outside of Cleveland, OH.



MIKE KEYSER

Chief Executive Officer

National Renewables Cooperative Organization (NRCO)

Mr. Keyser is in his fourth year as CEO of NRCO, where he leads a team of renewables developers and analysts providing market intelligence and project origination services to 23 electric cooperative members across the country. Prior to NRCO, Mike spent 11 years as CEO of BARC Electric Cooperative in Virginia and five years in American Samoa, as CEO and General Counsel of the American Samoa Power Authority. Mr. Keyser holds a bachelor's degree in business from Washington State University, a law degree from Seattle University School of Law, and a black belt in Lean Six Sigma from Virginia Tech.



CHRISTOPHER R. KNITTEL

Associate Dean for Climate and Sustainability, Sloan School of Management

George P. Shultz Professor of Applied Economics, Sloan School of Management

Director, MIT Center for Energy and Environmental Policy Research

Massachusetts Institute of Technology

Christopher Knittel is the Associate Dean for Climate and Sustainability and the George P. Shultz Professor of Energy Economics in the Sloan School of Management at MIT. He directs the Center for Energy and Environmental Policy Research. CEEPR, established in 1977, is the hub for social science work related to energy and the environment at MIT. He is also the director of MIT's new Climate Policy Center. Finally, along with Meredith Fowlie at UC Berkeley, he co-directs the Environmental and Energy Economics Program at the National Bureau of Economic Research. He is the former co-editor of the *Journal of Public Economics*, and an associate editor of the *Journal of Transportation Economics and Policy* and *Journal of Energy Markets*.

Knittel's research studies consumer and firm decision-making and what this means for the benefits and costs of environmental and energy policy. He often interacts with policy-makers to discuss his research findings and the current research needs of policy. His current work involves studying how the costs of climate change policy vary across households and firms and how this differs across policy choices. Knittel uses a variety of empirical methods for his research, including large-scale randomized control trials and machine learning techniques. Professor Knittel received his B.A. in economics and political science from the California State University, Stanislaus in 1994, an M.A. in economics from UC Davis in 1996, and a Ph.D. in economics from UC Berkeley in 1999.



SHANGWEI LIU

Postdoctoral Research Fellow
John F. Kennedy School of Government
Harvard University

Shangwei Liu is a Postdoctoral Research Fellow at the Harvard Kennedy School. He uses interdisciplinary approaches that combine engineering modeling and policy analysis to understand and accelerate clean energy innovation and deployment, aiming to inform science-based policies. He has published papers in *Nature Energy*, *Environmental Science & Technology*, and other journals. He received his Ph.D. in Science, Technology, and Environmental Policy from Princeton University and his bachelor's degree in environmental science from Beijing Normal University.



PHILIP MULDER

Assistant Professor of Risk and Insurance
Wisconsin School of Business
University of Wisconsin - Madison

Philip Mulder is an Assistant Professor of Risk and Insurance at the Wisconsin School of Business where he teaches risk management and analytics. His research topics include how homeowners and developers respond to information about flood risk, how insurance and crowdfunding affect wildfire recovery, and the dynamics of homeowners insurance premiums. His dissertation was recognized with awards from the American Real Estate and Urban Economics Association, the Geneva Association, and the American Academy of Actuaries.

Mulder holds a B.A. in mathematics and economics from Kalamazoo College and a Ph.D. in economics from the University of Pennsylvania's Wharton School. Before joining the Wisconsin School of Business, he was an economist at the U.S. Treasury Office of Financial Research and a research analyst at the Federal Reserve Bank of New York.



HEIDI NEPF

Donald and Martha Harleman Professor of Civil and Environmental Engineering
Department of Civil and Environmental Engineering
Massachusetts Institute of Technology

Dr. Nepf received her doctorate from Stanford University (1992) and was a Postdoctoral Fellow at Woods Hole Oceanographic Institution before beginning her career at MIT in 1993. She is internationally known for her work on the impact of vegetation on currents, waves, and sediment transport. The Nepf Lab develops models for the physical processes that determine how natural habitats, such as seagrass, marsh, oyster reef and mangroves, provide coastal protection and habitat, impact landscape evolution and stability, and promote and protect blue carbon reservoirs.



JOHN E. PARSONS

Deputy Director for Research
MIT Center for Energy and Environmental Policy Research
Massachusetts Institute of Technology

John Parsons is the Deputy Director for Research at the MIT Center for Energy and Environmental Policy Research (CEEPR). His research focuses on the valuation and financing of investments in energy markets, as well as the problems of risk in energy and environment markets. Recent publications have touched on the value of changing the utilization of transmission to maximize the value of hydro assets and expanded penetration of renewables, the value of investments in life extensions of nuclear power plants, the economics of new microreactors, and the impact of decarbonization on generation assets in the U.S. midcontinent.

Dr. Parsons serves as an Associate Member of the U.S. Commodity Futures Trading Commission's Energy and Environmental Markets Advisory Committee. He has been a Visiting Scholar at the Federal Energy Regulatory Commission. Dr. Parsons served as the Executive Director at both CEEPR and the MIT Joint Program on the Science and Policy of Global Change, and also as Head of Sloan's MBA Finance Track. Before returning to MIT, Dr. Parsons spent ten years as a business consultant at Charles River Associates. He holds a Ph.D. in Economics from Northwestern University and an A.B. from Princeton University.



BETHANY PATTEN

Executive Director, MIT Climate Policy Center
Senior Lecturer, Sloan School of Management
Massachusetts Institute of Technology

Bethany Patten is the inaugural Executive Director of the Massachusetts Institute of Technology's Climate Policy Center—MIT's "front door" to provide evidence-based climate research for local, state, national, and international policymakers. In addition to leading MIT's Climate Policy Center, she is a Senior Lecturer at MIT Sloan School of Management. Her work centers on the translation of academic research into real-world impact in the public and private sector. Specifically, she examines how institutions can best practice ethical political engagement, connecting with and educating leaders ranging from MIT graduate students to members of the United States Congress.

Previous to this, she served as the Director of Policy and Engagement for the MIT Sloan Sustainability Initiative where she co-founded MIT Climate Pathways Project bringing together faculty, staff, and researchers to advance the adoption of evidence-based climate policy through top tier decision-makers. The project, which leverages the En-ROADS Climate Solutions Simulator co-developed by Climate Interactive and MIT Sloan, has engaged over 15,000 global leaders in government, business, and civil society.

Prior to MIT, Bethany worked for more than a decade in business and financial operations in the book publishing industry. She holds an MBA from the MIT Sloan School of Management, an MPA at the John F. Kennedy School of Government at Harvard University, and a B.A. from Boston College.



OLIVER SELLERS-GARCIA

Green New Deal Director
Senior Advisor to Mayor Michelle Wu
City of Boston

Oliver Sellers-Garcia is Boston's first Green New Deal Director, serving as a Senior Advisor to Mayor Michelle Wu on climate action that addresses social, racial, and economic inequalities. Since July 2024, he also serves as the Commissioner of the Environment Department, the City's agency responsible for environmental quality, climate change, and energy.

Previously, Oliver was the Director of Resiliency and Equity at the MBTA and the Director of Sustainability and Environment in Somerville, where he managed programs related to climate, sustainability, and urban planning. Before his public sector roles, he consulted for cities worldwide on integrating sustainability into their operations. He holds a Bachelor's in Urban Studies from Columbia University and a Master's in City Planning from MIT.



W. ROBB STEWART

Chief Technology Officer
Alva Energy

W. Robb Stewart is a nuclear engineer specializing in nuclear power plant construction, cost estimation, and light water reactor power uprates. He has developed innovative methods to estimate costs, construction timelines, and labor requirements while optimizing system design—tools that are widely used across the industry. Prior to co-founding Alva, he co-founded Boston Atomics, an advanced reactor company focused on construction-optimized small modular reactors (SMRs). His work on SMR design and constructability has secured millions in U.S. Department of Energy funding. Stewart earned his Ph.D. in nuclear engineering from MIT, where he spearheaded the development of the Nuclear Cost Estimation Tool (NCET)—providing comprehensive insights into nuclear project economics and timelines.

Before transitioning to nuclear engineering, Stewart was a mechanical engineer at GE Research, contributing to the GE9X jet engine—the world's largest and most powerful commercial aircraft engine. He holds five U.S. patents and has published in journals such as *Nuclear Engineering and Design*, *Renewable and Sustainable Energy Reviews*, and the *Journal of Engineering for Gas Turbines and Power*. Stewart also holds bachelor's and master's degrees in mechanical engineering from the University of Texas at Austin.



DREW STORY

Managing Director, MIT Policy Lab
Policy Director, MIT Climate Policy Center
Massachusetts Institute of Technology

Drew Story, Ph.D., is Managing Director of MIT's Policy Lab and Policy Director of MIT's Climate Policy Center. In these roles he collaborates with MIT faculty to increase the policy impact of their research.

Prior to joining MIT, Drew served as a policy advisor in the US Senate on energy, environment, and climate policy issues. Over a dozen legislative provisions Drew advised on were signed into law as part of the Energy Act of 2020, the Infrastructure Investment and Jobs Act, the Inflation Reduction Act, the CHIPS and Science Act, and other legislative vehicles. Following his tenure in Congress, Drew led the development of two chapters of the Fifth National Climate Assessment at the US Global Change Research Program.

Drew received his Ph.D. in Chemical and Environmental Engineering with a Designated Emphasis in Public Policy from the University of California, Riverside and his B.S. in Physical Sciences Education from LeTourneau University.