#### **JOSEPH E. ALDY**

PROFESSOR OF THE PRACTICE OF PUBLIC POLICY HARVARD KENNEDY SCHOOL

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#### **Education**:

Doctor of Philosophy, Department of Economics, Harvard University, 2005 Master of Environmental Management, Nicholas School of the Environment, 1995 Bachelor of Arts, Duke University, 1993

#### **Professional Experience:**

2024-present	Teresa and John Heinz Professor of the Practice of Environmental Policy Harvard Kennedy School
2019-2024	Professor of the Practice of Public Policy
	Harvard Kennedy School
2015-2019	Associate Professor of Public Policy
	Harvard Kennedy School
2009-2015	Assistant Professor of Public Policy
	Harvard Kennedy School
	(public service leave Jan 2009 – Dec 2010)
2011-present	University Fellow / Visiting Fellow / Non-Resident Fellow
	Resources for the Future
2011-present	Faculty Research Fellow
	National Bureau of Economic Research
2014-present	Senior Adviser
	Center for Strategic and International Studies
2021-present	Senior Advisor
	Lazard Climate Center, Lazard Frères & Co.
2019-present	Kentucky Colonel, Commonwealth of Kentucky
2009-2010	Special Assistant to the President for Energy and Environment
	National Economic Council and Office of Energy and Climate Change,
	The White House
2005-2009	Fellow
	Resources for the Future
2007-2008	Adjunct Assistant Professor
	Department of Economics, Georgetown University
2008	Adjunct Professor

	Georgetown Public Policy Institute
2007	Lecturer
	Applied Economics Master's Program, Johns Hopkins University
1999-2000	Senior Economist for the Environment and Natural Resources
	Council of Economic Advisers, Executive Office of the President
1998-1999	Senior Advisor for the Global Environment
	Council of Economic Advisers, Executive Office of the President
1997-1998	Staff Economist for the Environment and Natural Resources
	Council of Economic Advisers, Executive Office of the President
1996-1997	Economist
	Natural Resources and Environment Division, Economic Research Service
1995-1996	Associate in Research
	Nicholas School of the Environment

# **Other Professional Affiliations:**

2011-present	Faculty Chair, Regulatory Policy Program, Mossavar-Rahmani Center for Business and Government
2019-present	Columnist, "The Economic Perspective," The Environmental Forum
2015-2022	Trustee, Board of Trustees, Robert and Patricia Switzer Foundation (Chair 2019-2022)
2011-present	Faculty Affiliate, Mossavar-Rahmani Center for Business and Government
2011-present	Faculty Affiliate, Taubman Center for State and Local Government
2011-present	Faculty Fellow, Harvard Environmental Economics Program
2011-present	Faculty Associate, Harvard University Center for the Environment
2017-present	Contributor, Harvard-China Project on Energy, Economy, and Environment
2008-2009	Treasurer, Association of Environmental and Resource Economists
2007-2009	Co-Director, Harvard Project on International Climate Agreements
2006-2009	Co-Director, International Energy Workshop

# **Advisory and Editorial Board Positions:**

2023-present	Member, National Advisory Committee, U.S. Environmental Protection Agency
2023-present	Member, Economics Advisory Council, Environmental Defense Fund
2023-present	Member, Board of Advisors, Environmental and Energy Law Program, Harvard
	Law School
2023-present	Advisory Editor, Editorial Board, Journal of Risk and Uncertainty
2021-present	Member, Editorial Board, Review of Environmental Economics and Policy
2021-present	Member, Advisory Board, Kepos Carbon Barometer, Kepos Capital
2020-present	Member, Committee on Government Relations, American Economic Association
2019-2020	Member, Steering Committee, Climate 21 Project
2016-present	Member, Advisory Board, The Environmental Forum
2015-2021	Member, Editorial Advisory Panel, Nature Energy
2011-present	Member, Editorial Board, Economics of Energy and Environmental Policy
2017-present	Member, Advisory Committee, Advancing Retrospective Analysis of Federal
	Environmental Regulation Project, Resources for the Future
2020-2022	Member, Advisory Board, Clean Resilient States Initiative, Center for Strategic
	and International Studies

2016-2020	Member, Advisory Committee for the Energy and Environment Program, Alfred
	P. Sloan Foundation
2015-2017	Member, Peer Review Advisory Committee, Indiana University Corporate
	Average Fuel Economy Standards Study

#### **Awards and Fellowships:**

2021	Best Pedagogical Innovation Finance and Sustainability Award, Forum pour
	l'Investissement Responsible and Principles for Responsible Investment
2020-2021	Visiting Scholar, Phi Beta Kappa Society
2016	Visiting Scholar, Kleinman Center for Energy Policy, University of Pennsylvania
2015-2018	Non-Resident Fellow, Center on Global Energy Policy, Columbia University
2015	Lone Mountain Fellow, Property & Environment Research Center
2008	Nicholas School of the Environment Rising Star Alumni Award
2005	Stone Pre-Doctoral Fellowship in Environmental and Resource Policy (Winner of
	Best Paper on Environmental and Resource Policy by Harvard University
	doctoral student)
2003	Certificate of Distinction in Teaching, Harvard University
2002	Certificate of Distinction in Teaching, Harvard University

#### **Research Grants and Fellowships:**

- Alfred P. Sloan Foundation, "Evaluating the Performance of the Inflation Reduction Act's Clean Energy Provisions," Principal Investigator, 2023-2024
- Salata Institute for Climate and Sustainability, "An End-to-End, Collaborative Strategy to Reduce Global Methane Emissions: Science, Engineering, Economics, Business, Policy, Law, Politics, Communications, and Action," Co-Principal Investigator, 2023-2026
- Salata Institute for Climate and Sustainability, "Corporate GHG Reduction and Net-Zero Targets:

  A Multidisciplinary Assessment of Companies' Targets, their Legal and Business Drivers,
  Potential Obstacles to their Achievement, and Strategies to Drive Real GHG Reductions,"
  Co-Principal Investigator, 2023-2026
- Research Institute of Innovative Technology for the Earth/Resources for the Future, "Managing Competitiveness Risks on the Path to Net-Zero Emissions," Co-Principal Investigator, 2023-2024
- Alfred P. Sloan Foundation, "The Role of Carbon Pricing in Future U.S. Energy and Climate Policy," Principal Investigator, 2021-2023
- Research Institute of Innovative Technology for the Earth/Resources for the Future, "Addressing Trade in a Net-Zero World," Co-Principal Investigator, 2021-2022
- Harvard Solar Geoengineering Research Program, "Decision Theory and Anomalies on Solar Geoengineering," Co-Principal Investigator, 2020-2021
- Research Institute of Innovative Technology for the Earth/Resources for the Future, "Advancing Global Efforts to Address Climate Change Risks," Co-Principal Investigator, 2020-2021
- Resources for the Future, "Solar Radiation Management Dialogue," Co-Principal Investigator, 2020
- Research Institute of Innovative Technology for the Earth/Resources for the Future, "Evaluating Global Climate Change Policy in Practice," Co-Principal Investigator, 2019-2020

- Research Institute of Innovative Technology for the Earth/Resources for the Future, "Evaluating the Competitiveness Effects of Global Climate Change Policy," Co-Principal Investigator, 2018-2019
- Alfred P. Sloan Foundation, "Evaluating the Performance of Energy and Environmental Regulations," Principal Investigator, 2017-2018
- Alfred P. Sloan Foundation, "Energy Policy Tradeoffs between Economics Efficiency and Distributional Equity," Research Team Member Efficiency and Distributional Consequences of Subsidies for Energy-Efficient Appliances paper, 2016-2017
- Research Institute of Innovative Technology for the Earth/Resources for the Future, "Transparency, Policy Surveillance, and Levels of Effort," Co-Principal Investigator, 2016-2018
- National Science Foundation/NBER, "Boutique Fuel Markets and Security-Environment-Economic Trade-offs," Grantee under NBER Economics of Energy Markets NSF Grant, 2016-2017
- Alfred P. Sloan Foundation, "The Efficiency and Fiscal Implications of Multiple, Overlapping Energy and Environmental Policies," Principal Investigator, 2015-2017
- Alfred P. Sloan Foundation, "Durability and Adaptability in Energy Policy," Study Group Member, 2014-2016
- Electric Power Research Institute, "The Competitiveness Effects of Domestic Climate Policy: A State-Level Evaluation," Principal Investigator, 2011-2012.
- Smith Richardson Foundation Domestic Policy Fellowship, "The Competitiveness Effects of U.S. Climate Change Policy," Principal Investigator, 2009. [Note: fellowship resources could not be accepted as condition of appointment in the Obama Administration.]
- Doris Duke Charitable Foundation, "Beyond Kyoto: Designing the Post-2012 International Policy Architecture to Address Global Climate Change," Co-Principal Investigator, 2007-2009.
- Pew Center on Global Climate Change, "Competitiveness Impacts of Climate Change Mitigation Policies," Principal Investigator, 2007-2008.
- Electric Power Research Institute, "Efficient Mechanisms for U.S. Domestic Climate Policy," Principal Investigator, 2007.
- USDA Economic Research Service, "Managing Invasive Species Risks," Co-Principal Investigator, 2006-2008.
- Morris K. Udall Scholarship and Excellence in National Environmental Policy Foundation Fellowship, 2004-2005.
- Repsol YPF-Harvard Kennedy School Energy Policy Fellowship, 2003-2004.
- Switzer Foundation Environmental Fellowship, 2003-2004.
- STAR Fellowship, U.S. Environmental Protection Agency, 2000-2003.
- Presidential Management Internship, Executive Office of the President and USDA Economic Research Service, 1996-1998.
- NNEMS Fellowship, U.S. Environmental Protection Agency, 1994.

#### **Working Papers:**

- <u>"Private Benefits from Public Investment in Climate Adaptation and Resilience"</u> (with Jacob T. Bradt)
- "Climate Tradeoffs: Emission Mitigation Policy, Public Assistance, and Adapting to a Warming
  Planet" (with Eleanor Krause)

<u>"Show & Tell: An Analysis of Corporate Climate Messaging and its Financial Impacts"</u> (with Patrick Bolton, Zachery M. Halem, Marcin T. Kacperczyk, and Peter R. Orszag)

"Learning How to Build Back Better through Clean Energy Policy Evaluation"

"The Not-Starting-from-Scratch Problem in Climate Policy: Designing a Carbon Tax for the Real World"

"The Political Economy of Carbon Pricing for a 2°C World"

<u>"Evaluating a Discretionary Safety Valve: The Economic and Environmental Impacts of Waiving</u>
<u>Fuel Content Regulations in Response to Supply Shocks"</u>

"Climate Reparations or Redistribution?"

"Heterogeneity in the Value of Life" (with Seamus J. Smyth)

"The Labor Market Impacts of the 2010 Deepwater Horizon Oil Spill and Offshore Drilling Moratorium"

"Designing Energy and Environmental Fiscal Instruments to Improve Public Health"

"The Efficiency Consequences of Heterogeneous Behavioral Responses to Energy Fiscal Policies" (with Sébastien Houde)

<u>"Evaluating Mitigation Effort: Tools and Institutions for Assessing Nationally Determined</u> <u>Contributions"</u>

"Living Mitigation Plans: The Co-Evolution of Mitigation Pledge and Review"

"Life-Saving Information: Mortality Risk Reduction from Air Quality Forecasts" (with Marie-Abele Bind)

"Information Provision and Countervailing Risks: The Case of UV-Index and Ozone Pollution Forecasts"

"Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy"

"Distributional Consequences of Environmental and Safety Regulations: Insights from Labor Market Decisions" (with Seamus J. Smyth)

"Focal Carbon Prices"

<u>"Evaluating the Paris Agreement's Mitigation Pledges with Statistical Forecasting Models"</u> (with Cuicui Chen and William A. Pizer)

#### **Research Papers in Progress:**

- "The Competitiveness Impacts of Climate Change Policy under the Paris Framework" (with William A. Pizer, Keigo Akimoto, Francesco Bosello, Carlo Carraro, Takashi Homma, and Ramiro Parrado)
- "Evaluating the Competitiveness Effects of Global Climate Change Policy" (with William A. Pizer)
- "Evaluating Policy Design Options of a Carbon Border Tax Adjustment" (with John Agan, Wesley Look, and Gilbert Metcalf)
- "The Impacts of Power Sector Carbon Regulations on the Manufacturing Labor Market" (with William A. Pizer)
- "The Additionality of the Clean Development Mechanism: A Macro Perspective" (with Gabriel Chan)
- "The Climate Transparency Conundrum"
- "Evaluating U.S. Regulatory Policy Performance"
- "Negotiators vs. Regulators: When Should Domestic Regulations Account for Global Impacts?"

#### **Publications – Journal Articles:**

- "The Evolving Role of Greenhouse Gas Emission Offsets in Combating Climate Change." Review of Environmental Economics and Policy, with Zachery M. Halem, forthcoming.
- "Investment versus Output Subsidies: Implications for Alternative Incentives for Wind Investment." Journal of the Association of Environmental and Resource Economists 10(4): 981-1018, with Todd D. Gerarden and Richard L. Sweeney, 2023.
- "Behind Schedule: The Corporate Effort to Fulfill Climate Obligations." Journal of Applied

  Corporate Finance 35(2): 26-34, with Patrick Bolton, Marcin Kacperczyk, and Zachery M.

  Halem, 2023.
- "How Is the U.S. Pricing Carbon? How Could We Price Carbon?" Journal of Benefit-Cost Analysis 13(3): 310-334, with Dallas Burtraw, Maureen Cropper, Carolyn Fischer, Meredith Fowlie, and Roberton Williams, 2022.
- "The Welfare Implications of Carbon Price Certainty." Journal of the Association of Environmental and Resource Economists 9(5): 921-946, with Sarah Armitage, 2022.
- "Busting the Myths around Public Investment in Clean Energy." Nature Energy 7: 563-565, with Jonas Meckling, Matthew J. Kotchen, Sanya Carley, Daniel C. Esty, Peter A. Raymond, Bella Tonkonogy, Charles Harper, Gillian Sawyer, and Julia Sweatman, 2022.

- "Updating the Social Cost of Carbon." Issues in Science and Technology 38(3): 6-8, 2022.
- "Looking Back at 50 Years of the Clean Air Act." Journal of Economic Literature 60(1): 179-232, with Max Auffhammer, Maureen Cropper, Art Fraas, and Dick Morgenstern, 2022.
- "Social Science Research to Inform Solar Geoengineering." Science 374: 815-818, with Tyler Felgenhauer, William A. Pizer, Massimo Tavoni, Mariia Belaia, Mark E. Borsuk, Arunabha Ghosh, Garth Heutel, Daniel Heyen, Joshua Horton, David Keith, Christine Merk, Juan Moreno-Cruz, Jesse L. Reynolds, Katharine Ricke, Wilfried Rickels, Soheil Shayegh, Wake Smith, Simone Tilmes, Gernot Wagner, and Jonathan B. Wiener, 2021.
- <u>"Solar Climate Intervention."</u> Invited response in The Forum, *Issues in Science and Technology* 38(1), 2021.
- "Keep Climate Policy Focused on the Social Cost of Carbon." Science 373: 850-852, with Matthew J. Kotchen, Robert N. Stavins, and James H. Stock, 2021.
- "Environmental Benefit-Cost Analysis: A Comparative Analysis Between the United States and the United Kingdom" Annual Review of Resource Economics 13(1): 267-288, with Giles Atkinson and Matthew Kotchen, 2021.
- "How Much Could Article 6 Enhance Nationally Determined Contribution Ambition toward Paris

  Agreement Goals through Economic Efficiency." Climate Change Economics 12(2):

  2150007, with James Edmonds, Sha Yu, Dirk Forrister, Nathan Hultman, Ryna Cui,

  Stephanie Waldhoff, Leon Clarke, Stefano de Clara, and Clayton Munnings, 2021.
- "The Role of Retrospective Analysis in an Era of Deregulation: Lessons from the U.S. Mercury and Air Toxics Standards." Review of Environmental Economics and Policy 15(1): 163-168, with Mary Evans, Karen Palmer, Meredith Fowlie, Arik Levinson, and Matthew Kotchen, 2021.
- "National Climate Policies and Corporate Internal Carbon Pricing" The Energy Journal 42(5): 87-98, with Nuno Bento and Gianfranco Gianfrate, 2021.
- "Rolling the Dice in the Corridors of Power: William Nordhaus's Impacts on Climate Change Policy." Climate Change Economics 11(4): 2040001, with Robert N. Stavins, 2020
- "Evaluating Regulatory Performance: Learning from and Institutionalizing Retrospective Analysis of EPA Regulations." Case Western Reserve Law Review 70(4): 971-1006, 2020.
- "Three Prongs for Prudent Climate Policy." Southern Economic Journal 87(1): 3-29, with Richard Zeckhauser, 2020.
- "The Cost-effectiveness Implications of Carbon Price Certainty." American Economic Association Papers and Proceedings 110: 113-118, with Sarah Armitage, 2020.
- <u>"Deep Flaws in a Mercury Regulatory Analysis."</u> Science 368: 247-248, with Matthew Kotchen, Mary Evans, Meredith Fowlie, Arik Levinson, and Karen Palmer, 2020.

- "Carbon Tax Review and Updating: Institutionalizing an Act-Learn-Act Approach to U.S. Climate Policy." Review of Environmental Economics and Policy 14(1): 76-94, 2020.
- "Birds of a Feather: Estimating the Value of Statistical Life from Dual-Earner Families." Journal of Risk and Uncertainty 58(2): 187-205, 2019.
- <u>"Future-Proof Your Climate Strategy."</u> Harvard Business Review, May/June 2019, 91-101, with Gianfranco Gianfrate, 2019.
- "Comparability in Sustainability Goals: A Broader Assessment of the Paris Pledges." Nature Climate Change 8(4): 124-129, with Gokul Iyer, Katherin Calvin, Leon Clarke, James Edmonds, Nate Hultman, Corinne Hartin, Haewon McJeon, and William Pizer, 2018.
- "Consumers' Response to State Energy Efficient Appliance Rebate Programs." American Economic Journal: Economic Policy 9(4): 227-255, with Sébastien Houde, 2017.
- "Policy Surveillance in the G20 Fossil Fuel Subsidies Agreement: Lessons for Climate Policy."

  Climatic Change 144: 97-110, 2017.
- "Designing and Updating a U.S. Carbon Tax in an Uncertain World." Harvard Environmental Law Review 41: 28-40, 2017.
- "Resolving the Inherent Uncertainty of Carbon Taxes: Introduction." Harvard Environmental Law Review 41: 1-13, with Marc Hafstead, Gilbert E. Metcalf, Brian C. Murray, William A. Pizer, Christina Reichert, and Roberton C. Williams III, 2017.
- <u>"Frameworks for Evaluating Policy Approaches to Address the Competitiveness Concerns of Mitigating Greenhouse Gas Emissions."</u> *National Tax Journal* 70(2): 395-420, 2017.
- "Comparing Emissions Mitigation Efforts across Countries." Climate Policy 17(4): 501-515, with William A. Pizer and Keigo Akimoto, 2016.
- "The Political Economy of Clinton's Ambitious Energy Program." Nature Energy 1(10), 2016.
- <u>"Economic Tools to Promote Transparency and Comparability in the Paris Agreement."</u> Nature Climate Change 6(11): 1000-1004, with William Pizer, Massimo Tavoni, Lara Aleluia Reis, Keigo Akimoto, Geoffrey Blanford, Carlo Carraro, Leon E. Clarke, James Edmonds, Gokul C. Iyer, Haewon C. McJeon, Richard Richels, Steven Rose, and Fuminori Sano, 2016.
- "Mobilizing Political Action on Behalf of Future Generations." The Future of Children 26(1): 157-178, 2016.
- "Alternative Metrics for Comparing Domestic Climate Change Mitigation Efforts and the Emerging International Climate Policy Architecture." Review of Environmental Economics and Policy 10: 3-24, with William A. Pizer, 2016.

- "Competitiveness Impacts of Climate Change Mitigation Policies." Journal of the Association of Environmental and Resource Economists 2(4): 565-595, with William A. Pizer, 2015.
- "Pricing Climate Risk Mitigation." Nature Climate Change 5: 396-398, 2015.
- "Review of Planetary Economics: Energy, Climate Change and the Three Domains of Sustainable

  Development, by Michael Grubb with Jean-Charles Hourcade and Karsten Neuhoff."

  Economics of Energy and Environmental Policy 4(1): 167-170, 2015.
- "Using and Improving the Social Cost of Carbon." Science 346: 1181-1182, with William Pizer, Matthew Adler, David Anthoff, Maureen Cropper, Kenneth Gillingham, Michael Greenstone, Brian Murray, Richard Newell, Richard Richels, Arden Rowell, Stephanie Waldhoff, and Jonathan Wiener, 2014.
- "The Crucial Role of Policy Surveillance in International Climate Policy." Climatic Change 126(3-4): 279-292, 2014.
- "Risk Regulation Lessons from Mad Cows." Foundations and Trends in Microeconomics 8(4), with W. Kip Viscusi, 2013.
- "The Case for a U.S. Carbon Tax." Oxford Energy Forum 91: 13-16, 2013.
- "A Preliminary Assessment of the American Recovery and Reinvestment Act's Clean Energy Package." Review of Environmental Economics and Policy 7(1): 136-155, 2013.
- "Review of Climate Change and Common Sense: Essays in Honour of Tom Schelling, edited by Robert W. Hahn and Alistair Ulph." Journal of Regional Science 53(1): 201-203, 2013.
- "Climate Negotiators Create an Opportunity for Scholars." Science 337: 1043-1044, with Robert N. Stavins, 2012.
- "Willingness to Pay and Political Support for a U.S. National Clean Energy Standard." Nature Climate Change 2: 596-599, with Matthew J. Kotchen and Anthony A. Leiserowitz, 2012.
- "The Promise and Problems of Pricing Carbon: Theory and Experience." Journal of Environment and Development 21(2): 152-180, with Robert N. Stavins, 2012.
- "Using the Market to Address Climate Change: Insights from Theory and Experience." Daedalus 141(2): 45-60, with Robert N. Stavins, 2012.
- "Promoting Clean Energy in the American Power Sector: A Proposal for a National Clean Energy Standard." Environmental Law Reporter 42: 10131-10149, 2012.
- "Real-Time Economic Analysis and Policy Development During the BP Deepwater Horizon Oil Spill." Vanderbilt Law Review 64(6): 1795-1817, 2011.
- "The Environmental Justice Dimensions of Climate Change." Environmental Justice 4(1): 17-25, with Marie Lynn Miranda, Douglas A. Hastings, and William H. Schlesinger, 2011.

- "Designing Climate Mitigation Policy." Journal of Economic Literature 48(4): 903-934, with Alan J. Krupnick, Richard G. Newell, Ian W.H. Parry, and William A. Pizer, 2010. Reprinted in Economics of the Environment: Selected Readings, Sixth Edition, R.N. Stavins, ed., W.W. Norton, 2012, and Seventh Edition, Edward Elgar, 2019.
- "Valuing the Risk of Death from Terrorist Attacks." Journal of Homeland Security and Emergency Management 7(1): Article 14, with Lisa A. Robinson, James K. Hammitt, Alan Krupnick, and Jennifer Baxter, 2010.
- "Introduction to the Frontiers of Environmental and Resource Economics." Journal of Environmental Economics and Management 57(1): 1-4, with Alan. J. Krupnick, 2009.
- "Issues in Designing U.S. Climate Change Policy." The Energy Journal 30(3): 179-210, with William A. Pizer, 2009.
- "A Tax-Based Approach to Slowing Global Climate Change." National Tax Journal 61: 493-517, with Eduardo Ley and Ian W.H. Parry, 2008.
- "Adjusting the Value of a Statistical Life for Age and Cohort Effects." Review of Economics and Statistics 90(3): 573-581, with W. Kip Viscusi, 2008.
- "Introduction to Special Symposium on Energy and Development in Africa." Energy Policy 36(8): 2771-2772, with Mark Howells and Leo Schrattenholzer, 2008.
- "Climate Policy Architectures for the Post-Kyoto World." Environment 50(3): 6-17, with Robert N. Stavins, 2008.
- "Age Differences in the Value of Statistical Life: Revealed Preference Evidence." Review of Environmental Economics and Policy 1(2): 241-260, with W. Kip Viscusi, 2007.
- "Labor Market Estimates of the Senior Discount for the Value of Statistical Life." Journal of Environmental Economics and Management 53(3): 377-392, with W. Kip Viscusi, 2007.
- "Energy and Carbon Dynamics at Advanced Stages of Development: An Analysis of the U.S. States 1960–1999." The Energy Journal 28(1): 91-111, 2007.
- "<u>Divergence in State-Level Per Capita Carbon Dioxide Emissions."</u> Land Economics 83(3): 353-369, 2007.
- <u>"Per Capita Carbon Dioxide Emissions: Convergence or Divergence?"</u> *Environmental and Resource Economics* 33(4): 533-555, 2006.
- "Review of Beyond Kyoto A New Global Climate Certificate System by Lutz Wicke." Bulletin of the American Meteorological Society 87: 1228-1229, 2006.
- "An Environmental Kuznets Curve Analysis of U.S. State-Level Carbon Dioxide Emissions."

  Journal of Environment and Development, U.S. EPA Special Issue 14(1): 48-72, 2005.

- "The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World."

  Journal of Risk and Uncertainty 27(1): 5-76, with W. Kip Viscusi, 2003.
- "Thirteen Plus One: A Comparison of Global Climate Policy Architectures." Climate Policy 3(4): 373–397, with Scott Barrett and Robert N. Stavins, 2003.
- "Environmental Equity and the Conservation of Unique Ecosystems: An Analysis of the

  Distribution of Benefits for Protecting Southern Appalachian Spruce-Fir Forests." Society
  and Natural Resources 12: 93–106, with Randall A. Kramer and Thomas P. Holmes, 1999.
- "The Role of Technology in Sustaining Agriculture and the Environment." Ecological Economics 26: 81–96, with James Hrubovcak and Utpal Vasavada, 1998.
- "Unit Pricing of Residential Municipal Solid Waste: Lessons from Nine Case Study Communities."

  Journal of Environmental Management 52(1): 79-93, with Marie Lynn Miranda, 1998.
- "Economics of Sustainable Agriculture." *Agricultural Outlook* 238: 21-24, with Utpal Vasavada and Jim Hrubovcak, 1997.
- "Recycling Jumps When Communities Use Unit Pricing for Residential Garbage." *Resource Recycling* 15(8): 27-31, with Marie Lynn Miranda, 1996.

#### <u>Publications – Edited Books:</u>

- <u>Post-Kyoto International Climate Policy: Implementing Architectures for Agreement.</u> New York: Cambridge University Press, with Robert N. Stavins, 2010.
- <u>Post-Kyoto International Climate Policy: Summary for Policymakers.</u> New York: Cambridge University Press, with Robert N. Stavins, 2009.
- <u>Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World.</u> New York: Cambridge University Press, with Robert N. Stavins, 2007.

#### **Publications – Book Chapters:**

- <u>"Economic Instruments."</u> Routledge Companion to Environmental Ethics, Benjamin Hale and Andrew Light, eds. Routledge, 2022.
- "Co-Benefits and Regulatory Impact Analysis: Theory and Evidence from Federal Air Quality
  Regulations." Environmental and Energy Policy and the Economy, Volume 2, Matthew
  Kotchen, James Stock, and Catherine Wolfram, eds., NBER/University of Chicago Press,
  with Matthew Kotchen, Mary Evans, Meredith Fowlie, Arik Levinson, and Karen Palmer,
  2021.
- <u>"Pricing Pollution through Market-based Instruments."</u> Handbook of U.S. Environmental Policy, David Konisky, ed., Edward Elgar, 2020.

- "Promoting Environmental Quality through Fuels Regulations: Lessons for a Durable Energy and Climate Policy." Lessons from the Clean Air Act: Building Durability and Adaptability into U.S. Climate and Energy Policy, Dallas Burtraw and Ann Carlson, eds. Cambridge University Press, 2019.
- <u>"Evaluating the Performance of Regulations and Regulatory Institutions."</u> Research Agenda for New Institutional Economics, Claude Ménard and Mary M. Shirley, eds. Edward Elgar, 2018.
- "Policy Surveillance: Its Role in Monitoring, Reporting, Evaluating and Learning." Governing Climate Change: Polycentricity in Action?, Harro van Asselt, Johanna Forster, David Huitema, and Andy Jordan, eds. Cambridge University Press, 2018.
- "Comparing Emission Mitigation Pledges: Metrics and Institutions." Towards a Workable and Effective Climate Regime, Scott Barrett, Carlo Carraro, and Jaime de Melo, eds.

  Fondation pour les Etudes et Recherches sur le Developpement International, with William A. Pizer, 2015.
- "Comparing Countries' Climate Mitigation Efforts in a Post-Kyoto World." Implementing a US

  Carbon Tax: Challenges and Debates, Ian Parry, Adele Morris, and Roberton C. Williams

  III, eds. Routledge, with William A. Pizer, 2015.
- <u>"Environmental Risk and Uncertainty."</u> Handbook of the Economics of Risk and Uncertainty, Volume 1, Mark J. Machina and W. Kip Viscusi, eds., Elsevier, with W. Kip Viscusi, 601-649, 2014.
- "Foreword." Toward a New Climate Agreement: Conflict, Resolution, and Governance. Todd Cherry, Jon Hovi, and David McEvoy, eds., Routledge, 2014.
- "The Employment and Competitiveness Impacts of Power-Sector Regulations." Does Regulation Kill Jobs? Cary Coglianese, Adam Finkel, and Chris Carrigan, eds. Philadelphia: University of Pennsylvania Press, with William A. Pizer, 2014.
- <u>"Eliminating Fossil Fuel Subsidies."</u> 15 Ways to Rethink the Federal Budget, Michael Greenstone, Max Harris, Karen Li, Adam Looney, and Jeremy Patashnik, eds. Washington, DC: The Hamilton Project, Brookings Institution, 31-35, 2013.
- "Designing a Bretton Woods Institution to Address Global Climate Change." Handbook of Energy and Climate Change, Roger Fouquet, ed. Cheltenham, UK: Edward Elgar, 2013.
- "Designing the Post-Kyoto Climate Regime." The Quest for Security: Protection without Protectionism and the Challenge of Global Governance, Mary Kaldor and Joseph Stiglitz, eds. New York: Columbia University Press, with Robert N. Stavins, 2013.
- <u>"Introduction."</u> Post-Kyoto International Climate Policy: Implementing Architectures for Agreement, Joseph E. Aldy and Robert N. Stavins, eds. New York: Cambridge University Press, 1-28, with Robert N. Stavins, 2010.

- "Lessons for the International Policy Community." Post-Kyoto International Climate Policy:
  Implementing Architectures for Agreement, Joseph E. Aldy and Robert N. Stavins, eds.
  New York: Cambridge University Press, 899-929, with Robert N. Stavins, 2010.
- <u>"Introduction and Overview."</u> Post-Kyoto International Climate Policy: Summary for Policymakers, Joseph E. Aldy and Robert N. Stavins, eds. New York: Cambridge University Press, 1-25, with Robert N. Stavins, 2009.
- "Lessons for the International Policy Community." Post-Kyoto International Climate Policy: Summary for Policymakers, Joseph E. Aldy and Robert N. Stavins, eds. New York: Cambridge University Press, 27-55, with Robert N. Stavins, 2009.
- "Comment on Jeffrey A. Frankel's 'Addressing the Leakage/Competitiveness Issue in Climate

  Change Policy Proposals.'" Climate Change, Trade and Competitiveness: Is a Collision

  Inevitable? Lael Brainard and Isaac Sorkin, eds. Washington, DC: Brookings Institution

  Press, 83-88, 2009.
- <u>"Towards a Post-Kyoto International Climate Policy Regime."</u> Beyond Copenhagen: A Climate Policymaker's Handbook. Juan Delgado and Stephen Gardner, eds. Brussels: Bruegel Books, 53-59, with Robert N. Stavins, 2009.
- "Introduction: International Policy Architecture for Global Climate Change." Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World, Joseph E. Aldy and Robert N. Stavins, eds. New York: Cambridge University Press, 1-27, with Robert N. Stavins, 2007.
- "Architectures for an International Global Climate Change Agreement: Lessons for the Policy

  Community." Architectures for Agreement: Addressing Global Climate Change in the

  Post-Kyoto World, Joseph E. Aldy and Robert N. Stavins, eds. New York: Cambridge

  University Press, 350-367, with Robert N. Stavins, 2007.
- "Competitiveness Impacts of Carbon Dioxide Pricing Policies on Manufacturing." Assessing U.S. Climate Policy Options, Raymond J. Kopp and William A. Pizer, eds. Washington, DC: Resources for the Future, with Richard Morgenstern, Evan M. Herrnstadt, Mun Ho, and William A. Pizer, 95-105, 2007.
- "Assessing the Costs of Regulatory Proposals for Reducing U.S. Greenhouse Gas Emissions."

  Assessing U.S. Climate Policy Options, Raymond J. Kopp and William A. Pizer, eds.

  Washington, DC: Resources for the Future, 53-68, 2007.
- <u>"Saving the Planet Cost-Effectively: The Role of Economic Analysis in Climate Change Mitigation Policy."</u> Painting the White House Green: Rationalizing Environmental Policy Inside the Executive Office of the President, Randall Lutter and Jason F. Shogren, eds. Washington, DC: Resources for the Future Press, 89–118, 2004.
- "Addressing Cost: The Political Economy of Climate Change." Beyond Kyoto: Advancing the International Effort Against Climate Change. Arlington, VA: Pew Center on Global Climate Change, 85-110, with Richard Baron and Laurence Tubiana, 2003.

"Can Annex I Countries Meet Their Emissions Targets at Modest Costs?" The Kyoto
Commitments: Can Nations Meet Them with the Help of Technology? C.E. Walker, M.A.
Bloomfield, M. Thorning, eds. Washington, DC: American Council for Capital Formation,
67-73, 2000.

#### <u>Publications – Policy Magazines, Non-Technical Papers, Op-Eds, and Reports:</u>

- "Using Trade Policy to Ensure a Level Climate Policy Playing Field." The Environmental Forum, January/February 2024, 15.
- "Applying the Social Cost of Carbon Broadly Across Whole Government." The Environmental Forum, November/December 2023, 15.
- <u>"Policy Implications of Overshooting Global Temperature Increase Goals."</u> The Environmental Forum, September/October 2023, 15.
- "Much Remarkable, but Insufficient, Progress Decarbonizing the World." The Environmental Forum, July/August 2023, 15.
- "Show and Tell: An Analysis of Corporate Climate Messaging and Its Financial Impacts." Harvard Law School Forum on Corporate Governance, June 2023.
- "How Much Could Government Spend on Clean Energy Investment?" The Environmental Forum, May/June 2023, 15.
- "How Green is Green Hydrogen? It's an Energy Source Shell Game." The Environmental Forum, March/April 2023, 15.
- "Crafting Compensation for Bearing Climate Change Loss and Damages." The Environmental Forum, January/February 2023, 15.
- "Let's Decide to Learn Faster: Delivering More Effective Environmental Policy." Yale Journal of Regulation Notice and Comment Blog, January 2023.
- "The Risks—and Opportunities—of Guaranteeing Clean Energy Loans." The Environmental Forum, November/December 2022, 15.
- "Designing Energy Tax Credits to Drive Greater Emission Reductions." The Environmental Forum, September/October 2022, 15.
- "Listing Investor and Environmental Benefits of Climate Risk Disclosures." The Environmental Forum, July/August 2022, 15.
- "Will the SEC's Proposed Climate Disclosure Rule Come Up against Legal and Economic Challenges?" Resources Special Series on the SEC Climate Disclosure Rule, May 2022.

- <u>"Even with Moves toward Transparency, Corporate Climate Pledges and Carbon Offsets Will Be Complicated."</u> Resources Special Series on the SEC Climate Disclosure Rule, May 2022.
- "Valuing Pollution Reductions in Premature Mortality Risk Cuts." The Environmental Forum, May/June 2022, 15.
- "Declining Fossil Fuel Prices May Slow Progress in Decarbonization." The Environmental Forum, March/April 2022, 15.
- "Is the Recent Run Up in Energy Prices Good for the Environment?" The Environmental Forum, January/February 2022, 15.
- "The Potential Role for Emission Offsets in Climate Change Policy." The Environmental Forum, November/December 2021, 15.
- "Addressing the Leakage and Competitiveness Risks of Climate Policy." Resources for the Future Issue Brief 21-15. October 2021.
- "Addressing the Competitiveness Impacts of Pollution Regulations." The Environmental Forum, September/October 2021, 15.
- "A Realistic Response to the Climate Wake-up Call." The Hill, August 30, 2021,
- <u>"Promoting Energy Efficiency as a Part of Decarbonization Strategy."</u> The Environmental Forum, July/August 2021, 15.
- "Decarbonizing the U.S. Economy Has Substantial, Impressive Benefits." The Environmental Forum, May/June 2021, 15.
- "Modernizing Regulatory Review for Energy, Environmental Policy." The Environmental Forum, March/April 2021, 15.
- <u>"Trying a Whole-of-Government Approach to Climate Change."</u> The Environmental Forum, January/February 2021, 15.
- "Biden Should Establish a Carbon Price Benchmark." The Hill, November 23, 2020.
- "The Incredible Benefits of the Clean Air Act's Half Century." The Environmental Forum, November/December 2020, 13.
- "The Art of the Climate Change War." The Regulatory Review, Penn Program on Regulation, 2020.
- "Crafting a Climate-Oriented Stimulus Recovery Program." The Environmental Forum, September/October 2020, 15.
- "Employing a Broader Policy Toolkit to Mitigate Climate Change Risks." The Environmental Forum, July/August 2020, 15.

- "Data from Expanded Surveillance Shows the Value of Information." The Environmental Forum, May/June 2020, 15.
- "Markets Don't Deny the Existence or Risks of Global Climate Change." The Environmental Forum, March/April 2020, 15.
- "Managing the Environmental and Cost Uncertainties in Pricing Carbon." The Environmental Forum, January/February 2020, 15.
- <u>"Report on the Proposed Changes to the Federal Mercury and Air Toxics Standards."</u> External Environmental Economics Advisory Committee Report, with Matthew Kotchen, Mary Evans, Meredith Fowlie, Arik Levinson, and Karen Palmer, 2019.
- <u>"Evaluating Development Given Our Obligation to Future Generations."</u> The Environmental Forum, November/December 2019, 17.
- "More Study Needed of the Overall Impact of Rules on American Society." The Environmental Forum, July/August 2019, 15.
- <u>"Benefits are Benefits Regardless of How They Are Legally Obtained."</u> The Environmental Forum, May/June 2019, 15.
- "A Few Keys to Saving the Planet Cost-effectively." The Environmental Forum, March/April 2019, 50.
- "What Green New Deal Advocates Can Learn from the 2009 Economic Stimulus Act." The

  Conversation, February 2019; reprinted in Houston Chronicle, San Francisco Chronicle,

  Seattle Post-Intelligencer, Albany Times-Union, Idaho Press-Tribune, Laredo Morning

  Times, Bozeman Daily Chronicle, and others.
- "Improving Regulatory Transparency Through Retrospective Analysis." The Regulatory Review, Penn Program on Regulation, 2018.
- "Trade Shifts Pollution More than Regs Shift Trade." The Environmental Forum, Sep/Oct 2018, 52.
- "Why a Minor Change to How EPA Makes Rules Could Radically Reduce Environmental

  Protection." The Conversation, June 2017; reprinted in the LA Times, Chicago Tribune,
  Houston Chronicle, San Francisco Chronicle, Seattle Post-Intelligencer, Business Insider,
  Idaho Press-Tribune, New Haven Register, San Antonio Express-News, Albany TimesUnion, Laredo Morning Times, Plainview Daily Herald, and others.
- "Advancing Regulatory Policy to Improve the Lives of the American People." The Regulatory Review, Penn Program on Regulation, 2018.
- "Consumers' Response to State Energy Efficient Appliance Rebate Programs." Cato Institute Research Briefs in Economic Policy No. 101, with Sébastien Houde, 2018.

- "Real World Policy Headwinds for Trump Climate Change Policy." Bulletin of the Atomic Scientists 73(6): 376-381, 2017.
- "<u>The Political Economy of Carbon Pricing Policy Design</u>." Harvard Project on Climate Agreements Discussion Paper ES17-7. October 2017.
- "Carbon Price Focal Points and Carbon Markets." In: R. Stavins and R. Stowe, eds., Market

  Mechanisms and the Paris Agreement, Harvard Project on Climate Agreements, October
  2017.
- "Eliminating U.S. Fossil Fuel Production Subsidies." Scholars Strategy Network Policy Brief, March 2017.
- "Energy Market Shock Absorbers: Waiving Environmental Regulations in Response to Fuel Market Disruptions." Policy Digest, Kleinman Center for Energy Policy University of Pennsylvania, March 2017.
- "Curbing Climate Change Has a Dollar Value Here's How and Why We Measure It." The Conversation, March 2017; reprinted in <u>U.S. News and World Report</u>, <u>Salon</u>, San Francisco Chronicle, Idaho Press-Tribune, <u>Grist</u>, <u>Bangor Daily News</u>, Bozeman Daily Chronicle, and others.
- "The Great Swap." Democracy, with Will Marshall, February 2017.
- "What Trump Misses about Regulations: They Produce Benefits as Well as Costs." The Conversation, February 2017; reprinted in the San Francisco Chronicle, Newsweek, Louisville Courier-Journal, San Antonio Express-News, Boston Business Journal, Sacramento Business Journal, and others.
- <u>"Transparency, Policy Surveillance, and the Comparison of Mitigation Efforts."</u> Resources for the Future Discussion Paper 16-46, with William A. Pizer and Keigo Akimoto, November 2016.
- <u>"Long-term Carbon Policy: The Great Swap."</u> Published by the Progressive Policy Institute.

  November 2016.
- "Subsidies in the Wrong Places Skew Renewable Energy's Power." New York Times Room for Debate, May 3, 2016
- "The Role of Domestic Policy Surveillance in the Multilateral Climate Regime." In: R. Stavins and R. Stowe, eds., *The Paris Agreement and Beyond: International Climate Change Policy Post-2020*, Harvard Project on Climate Agreements, October 2016.
- "Bilateral Cooperation between China and the United States: Facilitating Progress on Climate

  Change Policy." Harvard Project on Climate Agreements and the National Center for

  Climate Change Strategy and International Cooperation, with Thomas Brewer, Chen Ji,

- Fu Sha, Qi Yue, Robert Stavins, Robert Stowe, Wang Pu, Xhang Xiaohua, Zheng Shuang, and Zou Ji, February 2016.
- "Comparison and Linkage of Heterogeneous Mitigation Systems in the Paris Regime." In:
  International Emissions Trading Association Making Waves: Greenhouse Gas Market
  2015-2016, with Robert Stowe and Bianca Sylvester, 2015.
- "As the U.S. Heads to Climate Talks, It Seeks a Plan to 'Trust but Verify.'" The Conversation,

  November 2015; reprinted in Fortune, the Christian Science Monitor, chinadialogue.net, and other media outlets, translated in The Conversation Français.
- "Need Transparency and Review Mechanisms," The Debate: How Can the U.S. Lead in Paris to Achieve a Climate Agreement We Can Live With? *The Environmental Forum*, Nov/Dec 2015, 48.
- "The Road to Paris and Beyond: Comparing Emissions Mitigation Efforts." Resources 189: 18-25, with William A. Pizer, 2015.
- "Heterogeneity in the Value of Life." VoxEU, August 14, 2014, with Seamus J. Smyth,
- "Money for Nothing: The Case for Eliminating U.S. Fossil Fuel Subsidies." Resources 186: 32-37, 2014.
- "OMB: Obscurity in Management and Budget?" Regulation 36(4): 5-6, with Art Fraas and Randall Lutter, 2014.
- <u>"Financial Regulation Sans Analysis."</u> *Politico* Op-Ed, with Art Fraas and Randall Lutter, June 20, 2012.
- <u>"Promoting Clean Energy in the American Power Sector."</u> The Hamilton Project Discussion paper 2011-04, The Brookings Institution, 2011.
- "An Economist's View of the Oil Spill from Inside the White House." Resources 177: 28-29, 2011.
- <u>"Competitiveness Impacts of Climate Change Mitigation Policies."</u> Arlington, VA: Pew Center on Global Climate Change, with William A. Pizer, 2009.
- "The Role of Technology Policies in an International Climate Agreement." Issue Paper prepared for the Climate Dialogue, September 2-3, Office of the Prime Minister, Copenhagen, Denmark, with Robert N. Stavins, 2008.
- "What Is the Role of Carbon Taxes in Climate Change Mitigation?" World Bank PREMnotes, Special Series on The Economics of Climate Change, Number 2, with Eduardo Ley and Ian W.H. Parry, July 2008.
- <u>"Economic Incentives in a New Climate Agreement."</u> Issue Paper prepared for the Climate Dialogue, May 7-8, Office of the Prime Minister, Copenhagen, Denmark, with Robert N. Stavins, 2008.

- "Climate Change and Energy Security: Lessons Learned." AICGS Policy Report 35, American Institute for Contemporary German Studies, with Camilla Bausch and Michael Mehling, 2008.
- "Forging a Climate Agreement that Works." Washington Post PostGlobal Op-Ed, with Robert N. Stavins, December 17, 2007.
- "Using Emission Fees to Curb Greenhouse Gases: A Primer." Progressive Policy Institute Policy Memo, 2007.
- "The Strategic Petroleum Reserve: A Short-Term Response." Resources 163: 19-20, 2006.
- "Heating Subsidies Make a Difference in Offsetting Winter Mortality Rates Among the Poor and Elderly." *Resources* 160: 5-6, 2006.
- "Designing a Regime for Developing Countries that is Cost-Effective and Equitable." Paper presented at the Leaders' Summit on Post-Kyoto Architecture: Toward an L20? Conference, Council on Foreign Relations, New York, NY, September 21, 2004, with Jeffrey A. Frankel.
- "Climate Change: An Agenda for Global Collective Action." AEI-Brookings Joint Center on Regulatory Affairs Related Publication, with Peter R. Orszag and Joseph E. Stiglitz, 2001.
- <u>Unit Pricing Programs for Residential Municipal Solid Waste: An Assessment of the Literature.</u>

  <u>Report submitted</u> to the Climate Change Division, Office of Policy, Planning, and Evaluation, USEPA, with Miranda, Marie Lynn and Scott D. Bauer, October 1995.
- A Framework for Estimating the Economic Benefits from Reduced Ambient Ozone Welfare Effects
  Under Alternative Secondary National Ambient Air Quality Standards. Durham, NC:
  Nicholas School of the Environment, Duke University. Master's Project, 1995.

#### Academic Seminar, Conference, and Workshop Research Presentations:

Academic Seminar, University of Chicago, 2023

Academic Seminar, Virtual Seminar on Climate Economics, Federal Reserve Bank of San Francisco, 2023

Academic Seminar, University of Kentucky, 2023

Voluntary Corporate Emission Reduction Initiatives, bp-Harvard Symposium, London, 2023

Promoting Clean Energy without Pricing Carbon, bp-Harvard Symposium, London, 2023

Taxing Climate Change and the Inflation Reduction Act Plenary, National Tax Association Annual Conference, Denver, CO, 2023

Academic Seminar, Salata Climate Research Workshop, Harvard University, 2022

Academic Seminar, Energy Policy Seminar, Harvard University, 2022

Environment and Climate Change Canada Invited Lecture, Canadian Economic Association Meetings, Ottawa, Canada, 2022

9<sup>th</sup> Annual Workshop on the Global Economy: Climate Change, Centre for Applied Macroeconomic Analysis, Australian National University, Washington, DC, 2022

Looking Back: Using Retrospective Analysis to Improve Federal Environmental Regulation, Resources for the Future, Washington, DC / Zoom, 2022

SBCA/American Economic Association, Annual Meeting (Zoom), 2022

Academic Seminar (Zoom), Florida State University, 2021

Academic Seminar (Zoom), University of Houston, 2021

Academic Seminar (Zoom), University of Cambridge, 2021

Future Directions for Research in Evaluating the Clean Air Act, Society for Benefit-Cost Analysis, Washington, DC / Zoom, 2021

Academic Seminar (Zoom), University of Missouri, 2020

Academic Seminar (Zoom), Congressional Budget Office, 2020

Academic Seminar (Zoom), Resources for the Future, 2020

Academic Seminar (Zoom), Chancellor's Distinguished Lecture Series, United Arab Emirates University, 2020

Academic Seminar, Georgia State University, 2020

Climate-Oriented Economic Recovery, Resources for the Future, Washington DC / Zoom, 2020

NBER Environment and Energy Economics and Policy Conference, National Bureau of Economic Research, Washington DC / Zoom, 2020

Climate Change: Promoting Global Sustainability, *Journal of International* Law Annual Symposium, University of Pennsylvania Carey Law School, Philadelphia, PA, 2020

Academic Seminar, Arizona State University, 2019

Academic Seminar, University of Connecticut, 2019

Academic Seminar, Harvard University, 2019

BP / Harvard and Tufts Climate Policy Symposium, London, 2019

The Environmental Protection Agency Turns 50, Case Western Review University School of Law, Cleveland, OH, 2019

Risk Assessment, Economic Evaluation, and Decisions Workshop, Harvard University Center for the Environment, Cambridge, MA, 2019

How Well Are Our Environmental Laws Working? Retrospective Analysis of Federal Environmental Regulation Workshop, Resources for the Future, Washington, DC, 2019 AERE Summer Conference, Lake Tahoe, NV (two talks), 2019

Spring 2019 Workshop, Center for Energy and Environmental Policy Research, MIT, Cambridge, MA, 2019

America's Climate Change Future, Brown University, Providence, RI, 2019

Academic Seminar, Duke University, 2018

Academic Seminar, Harvard University, 2018 (multiple seminars)

Political Economy of Energy Policy: Research Frontiers Workshop, Princeton University, Princeton, NJ, 2018

Risk Guidelines for a Safer Society Symposium, Program in Law and Economics, Vanderbilt Law School, Nashville, TN, 2018

Sixth World Congress of Environmental and Resource Economists (three presentations), Gothenburg, Sweden, 2018

The Society for Benefit-Cost Analysis Annual Conference, Washington, DC, 2018

Making Border Carbon Adjustments Work in Law and Practice, The Brookings Institution, Washington, DC, 2018

AERE/American Economic Association, Annual Meeting, Philadelphia, PA, 2018

Academic Seminar, Georgetown University, 2017

Academic Seminar, Harvard Kennedy School, 2017

Strengthening Energy Policy in the Northeast Region, American Academy of Arts & Sciences, Cambridge, MA, 2017

Managing Environmental Risks: Markets, Regulation, and Adaptive Learning, Duke University and the Property and Environment Research Center, Durham, NC, 2017

Strengthening Energy Policy in the Great Lakes Region, American Academy of Arts & Sciences and Ford School of Public Policy, University of Michigan, Ann Arbor, MI, 2017

Harvard/Tufts/BP Climate Policy Workshop, London, 2017

Market Mechanisms and the Paris Agreement, Research Workshop hosted by the Harvard Project on Climate Agreements, Harvard University, Cambridge, MA, 2017

Northeast Energy Policy and Environmental Economics Workshop, Dartmouth College, Hanover, NH, 2017

AERE Summer Conference, Pittsburgh, PA (two talks), 2017

Economics of Energy Markets Workshop, National Bureau of Economic Research, Washington, DC, 2017

Carbon Mitigation Initiative Sixteenth Annual Meeting, Princeton University, Princeton, NJ, 2017 Governing Climate Change: Polycentricity in Action? Workshop, hosted by Inogov and the Netherlands Open University, Heerlen, The Netherlands, 2017

Durability and Adaptability in Energy Policy Workshop, American Academy of Arts & Sciences, Washington, DC, 2017

Saving the Planet Cost-Effectively: Ambition, Fairness, and Markets in International Climate Policy, Clough Center on the Study of Constitutional Democracy, Boston College, 2017

Academic Seminar, University of Pennsylvania, 2016

Academic Seminar, University College London, 2016

Academic Seminar, London School of Economics, 2016

Academic Seminar, University of Oxford, 2016

Academic Seminar, University of California – Berkeley, 2016

Academic Seminar, Harvard Kennedy School, 2016

Academic Seminar, Columbia University, 2016

Durability and Adaptability in Energy Policy Workshop, American Academy of Arts & Sciences, Washington, DC, 2016 (July)

International Climate Change Policy after Paris, Research Workshop hosted by the Harvard Project on Climate Agreements, Harvard University, Cambridge, MA 2016

Implementing the Climate Agreement, XXXIX MIT Global Change Forum, Massachusetts Institute of Technology, Cambridge, MA, 2016

Moving on from Paris: Implementation Lessons from Social Science, Board on Environmental Change and Society, National Academy of Sciences, Washington, DC, 2016

Global Voices on Climate Change and the Paris Agreement, Center for Global Energy Policy, Columbia University, New York, NY, 2016

Energy Policy Tradeoffs between Economic Efficiency and Distributional Equity Conference, National Bureau of Economic Research, Cambridge, MA, 2016

Environmental and Energy Economics Spring Workshop, National Bureau of Economic Research, Cambridge, MA, 2016

Economics of Energy Markets Conference, National Bureau of Economic Research, Cambridge, MA, 2016

Fighting Climate Change with the Paris COP21 Agreement: Treat or Trick?, Jackson Institute for Global Affairs and Center for Study of Globalization, Yale University, New Haven, CT, 2016

Too Little Too Late? A Discussion of the Effects of the Paris Climate Agreement, University of Pennsylvania Law School, Philadelphia, PA, 2016

Durability and Adaptability in Energy Policy Workshop, American Academy of Arts & Sciences, Washington, DC, 2016 (February)

Yale Energy and Environment Day, Yale University, New Haven, CT, 2016

Academic Seminar, Duke University, 2015

Academic Seminar, Columbia University, 2015

Academic Seminar, Boston College, 2015

Academic Seminar, Harvard University, 2015

Academic Seminar, Harvard Kennedy School, 2015

Academic Seminar, Environmental Defense Fund, 2015

National Tax Association Annual Conference, Boston, MA, 2015

BP/Harvard Kennedy School/Fletcher School Symposium on Energy Policy, Cambridge, MA, 2015

Addressing Competitiveness and Leakage Concerns in a Carbon Tax: What Are the Options? Workshop, Resources for the Future, Washington, DC, 2015

Kyoto's "Success," Copenhagen's "Failure," and Climate Policy after Paris, Stonehill College, Easton, MA, 2015

Opening Keynote Lecture, Quinto Congreso Nacional de Investigación en Cambio Climático, Universidad Nacional Autónoma de Mexico, Mexico City, Mexico 2015

Lone Mountain Fellowship Seminar, Property & Environment Research Center, Bozeman, MT, 2015

Bilateral Cooperation between China and the United States: Facilitating Progress on Climate Change Policy, National Center for Climate Strategy and International Cooperation/National Development and Reform Commission and the Harvard Project on Climate Agreements, Beijing, China, 2015

AERE Summer Conference, San Diego, CA, 2015

Inequality and the Economic Analysis of Climate Change Workshop, Center for Law, Economics, and Public Policy, Duke University, Durham, NC, 2015

Comparison and Linkage of Mitigation Efforts in a New Paris Regime, Harvard Project on Climate Agreements/International Emissions Trading Association/World Bank, Cambridge, MA, 2015

If Fossil Fuel Subsidies Are So Bad, Why Are They So Common? Center on Global Energy Policy, Columbia University, New York, NY, 2015

The Society for Benefit-Cost Analysis Annual Conference (two presentations), Washington, DC, 2015

The Future of Children: Climate Change Workshop, Princeton University and the Brookings Institution, Princeton, NJ, 2015

Academic Seminar, Yale University, 2014

Academic Seminar, Carnegie Mellon University, 2014

Regulatory Policy Initiative Workshop, Resources for the Future, Washington, DC, 2014
Enhancing the Transatlantic Trade and Investment Partnership: Reducing Regulatory Barriers
Conference, George Washington University Regulatory Studies Center, Washington, DC, 2014

Workshop on Second Generation Biofuels, Harvard Kennedy School, Cambridge, MA, 2014 BP/Harvard Kennedy School Symposium on Energy Policy, Cambridge, MA, 2014 PERC Workshop on Environmental Quality and Human Health, Bozeman, MT, 2014 World Congress of Environmental and Resource Economists, Istanbul, Turkey, 2014 Social Cost of Carbon Workshop, Duke University, Durham, NC, 2014

Spring 2014 Workshop, Center for Energy and Environmental Policy Research, MIT, Cambridge, MA, 2014

AERE/American Economic Association, Annual Meeting, Philadelphia, PA, 2014

Academic Seminar, Harvard University, 2013

Academic Seminar, Harvard Kennedy School, 2013

Workshop on Building Block Strategies for Global Climate Action, NYU Law School, New York, 2013

BP/Harvard Kennedy School Symposium on Energy, Security, and Climate Policy, Cambridge, MA, 2013

IZA Workshop on Labor Market Effects of Environmental Policies, Institute for the Study of Labor, Bonn, Germany, 2013

Health and Welfare Implications of Taxation and Subsidy Policies to Alter Non-Communicable Disease Risks, Commission on Investing in Health/Harvard Global Health Institute/Disease Control Priorities Project Workshop, Cambridge, MA, 2013

Climate Change Impacts and Integrated Assessment, Energy Modeling Forum Summer Workshop, Snowmass, CO (two presentations), 2013

AERE Summer Conference Sponsored Sessions, Banff, Canada, 2013

Mercator Institute and Harvard Project on Climate Agreements Durban Platform Workshop, Berlin, Germany, 2013

AERE/American Economic Association, Annual Meeting, San Diego, CA (two talks), 2013

Academic Seminar, Harvard Kennedy School, 2012

Academic Seminar, Resources for the Future, 2012

Power Generation and the Environment: Choices and Economic Trade-Offs, University of Wyoming, Jackson Hole, WY, 2012

BP/Harvard Kennedy School Symposium on Energy, Security, and Climate Policy, Cambridge, MA, 2012

Academic Seminar, Massachusetts Institute of Technology, 2011

Academic Seminar, Columbia University, 2011

Academic Seminar, Harvard Kennedy School, 2011

Plenary Address, International Energy Workshop hosted by the Stanford Energy Modeling Forum, Palo Alto, CA, 2011

The Future of Climate Negotiations, Policy Session sponsored by FEEM and Tilburg Sustainability Center, European Association of Environmental and Resource Economists Conference, Rome, Italy, 2011

BP/Harvard Kennedy School Symposium on Energy, Security, and Climate Policy, Cambridge, MA, 2011

Keynote Address, Rigs, Risk, and Responsibility: Conference on the BP Oil Spill, Vanderbilt Law School, Nashville, TN, 2011

Keynote Address, Association of Environmental and Resource Economists (AERE) Summer Workshop, Washington, DC, 2009

Academic Seminar, Harvard Kennedy School, 2008

Academic Seminar, Duke University, 2008

Academic Seminar, Yale University, 2008

Academic Seminar, Tsinghua University, 2008

Academic Seminar, Brookings Institution, 2008

Academic Seminar, International Monetary Fund, 2008

Academic Seminar, The World Bank, 2008

PERC Lone Mountain Forum on Markets for Land and Pollution: Implications for Environmental Justice, Big Sky, Montana, 2008

3<sup>rd</sup> Atlantic Workshop on Energy and Environmental Economics, A Toxa, Spain, 2008

American Economic Association, Annual Meeting, New Orleans, LA, 2008

Academic Seminar, Yale University, 2007

Academic Seminar, University of Minnesota, 2007

Academic Seminar, Triangle Resource and Environmental Economics Seminar (Duke/NC State University/Research Triangle Institute), 2007

Academic Seminar, University of California - Berkeley, 2007

Academic Seminar, Vanderbilt University, 2007

Academic Seminar, University of Central Florida, 2007

Academic Seminar, Carnegie Mellon University, 2007

PREISM Workshop, Economic Research Service, Washington, DC, 2007

Plenary Address, International Energy Workshop hosted by the Stanford Energy Modeling Forum, Palo Alto, CA, 2007

Global Climate Change Research Seminar, Electric Power Research Institute, Washington, DC, 2007

Forum on Global Climate Strategies Beyond 2012: The Route Ahead, Florence School of Regulation, Madrid, Spain, 2007

Climate Policy Network, Fifth Meeting, ZEW, Mannheim, Germany (two presentations), 2007

Great Decisions Lecture Series, University of North Carolina–Wilmington, Wilmington, NC, 2007

Academic Seminar, University of Kentucky, 2006

Ecological Society of America, Annual Meeting, Memphis, TN, 2006

Third World Congress of Environmental and Resource Economists, Kyoto, Japan (two presentations), 2006

Plenary Address, International Energy Workshop, hosted by the University of Cape Town Energy Research Centre, Cape Town, South Africa (two presentations), 2006

Economics of Population Health Conference, American Society of Health Economists, Madison, WI, 2006

Morbidity and Mortality: How Do We Value the Risk of Illness and Death? U.S. Environmental Protection Agency, Washington, DC, 2006

Academic Seminar, University of Maryland, 2005

Academic Seminar, Paul H. Nitze School of Advanced International Studies, 2005

Academic Seminar, Johns Hopkins University, 2005

Academic Seminar, University of California – Santa Barbara, 2005

Academic Seminar, University of California - Davis, 2005

Academic Seminar, Columbia University, 2005

Academic Seminar, Rice University, 2005

Academic Seminar, Resources for the Future, 2005

Academic Seminar, Rand Corporation, 2005

Academic Seminar, Public Policy Institute of California, 2005

Colloquium on Socioeconomic Drivers of Greenhouse Gas Emissions, U.S. Environmental Protection Agency and World Resources Institute, Washington, DC, 2005

Heartland Environmental and Resource Economics Workshop, Iowa State University, Ames, IA, 2005

Academic Seminar, Stanford University, 2004

Academic Seminar, University of Texas at Austin, 2004

Academic Seminar, Harvard University, 2004

International Energy Workshop, hosted by the International Energy Agency, Paris, France, 2004 Association of Environmental and Resource Economists (AERE) Summer Workshop, Estes Park, CO. 2004

AERE/American Economic Association Meeting, San Diego, CA (two talks), 2004

Roundtable Discussion on Benefit-Cost Analysis, Harvard Law School and Harvard Center for Risk Analysis, Cambridge, MA, 2004

#### **Academic Conference Paper Discussant:**

AERE/American Economic Association, Annual Meeting, San Antonio, TX, 2024

Designing Fiscal Policies on the Road to Net Zero, October 2023 Fiscal Monitor Analytical Chapter Workshop, International Monetary Fund, Zoom, 2023

Distributional Consequences of New Energy Policies Workshop, National Bureau of Economic Research, Cambridge, MA 2023

RFF Solar Geoengineering Research Workshop, Resources for the Future, Washington, DC, 2022 Distributional Consequences of New Energy Technologies Workshop, National Bureau of Economic Research, Cambridge, MA 2022

Design of Environmental Clubs Workshop, University of Laval, Quebec City, Quebec, Canada, 2022

The Economics of Innovation in the Energy Sector Workshop, National Bureau of Economic Research, Cambridge, MA, 2022

AERE/American Economic Association, Annual Meeting, Zoom, 2021

American Economic Association Annual Meeting, San Diego, CA, 2020

AERE Summer Conference, Lake Tahoe, NV, 2019

Northeast Workshop on Energy Policy and Environmental Economics, Columbia University, New York, 2018

The Society for Benefit-Cost Analysis Annual Conference, Washington, DC, 2018

Governing Climate Change: Polycentricity in Action? Workshop, hosted by Inogov and the Netherlands Open University, Heerlen, The Netherlands, 2017

American Economic Association, Annual Meeting, Boston, MA, 2015

National Bureau of Economic Research Summer Institute, Urban Economics Workshop, Cambridge, MA, 2014

National Bureau of Economic Research Summer Institute, Environmental and Energy Economics Workshop, Cambridge, MA, 2014

World Congress of Environmental and Resource Economists, Istanbul, Turkey, 2014

Human Adaptation to Climate Change, Lone Mountain Forum, Bozeman, MT, 2011

Climate Change, Trade, and Competitiveness Conference, Brookings Institution, Washington, DC, 2008

American Economic Association, Annual Meeting, New Orleans, LA, 2008

AERE/American Economic Association, Annual Meeting, New Orleans, LA 2008

National Bureau of Economic Research Summer Institute, Environment and Public Policy Session, Cambridge, MA, 2007

POWER Conference on Electricity Industry Restructuring, UC-Berkeley, Berkeley, CA, 2007

Strategic Options for Bush Administration Climate Policy Book Forum, American Enterprise Institute, Washington, DC 2006

Invasive Species Management: 2006 PREISM Workshop, USDA Economic Research Service, Washington, DC, 2006

Economics of Climate Change: Understanding Trans-Atlantic Differences Workshop, Resources for the Future and the British Embassy, Washington, DC, 2006

Climate Policy Network Workshop, Cambridge, MA, 2006

Workshop on Voluntary Programs, Resources for the Future, Washington, DC, 2005

#### Conference, Workshop, and Invited Policy Presentations:

Workshop on Tracking and Evaluation of RD&D Programs at the Department of Energy, Resources for the Future, Zoom, 2023

Policy: The Path Forward, XLV MIT Global Change Forum, MIT Joint Program on the Science and Policy of Global Change, Cambridge, MA, 2023

Implementing U.S. Climate Policy through the Inflation Reduction Act, CEPR/EAERE Webinar Series on Climate Policies, Zoom, 2023

Trade Experts Roundtable, Global Affairs Canada, Ottawa, Canada, 2022

BP-Harvard-Tufts Symposium on Climate and Energy Policy, Cambridge / Zoom, 2021

Getting to Net-Zero by 2050, MIT Energy Initiative Annual Research Conference, Zoom, 2021

The Politics of Climate Change, Centre for European Reform, Ditchley Park, England / Zoom, 2021

Macroeconomic Policy and Climate Change, Next Bretton Woods Group Meeting, Peterson Institute for International Economics, Zoom, 2021

Managing Planet Earth, Colgate University, Hamilton, NY / Zoom and Phi Beta Kappa, 2021 Saving the Planet Cost-effectively, Temple University, Philadelphia, PA / Zoom and Phi Beta Kappa, 2021

The Role of Energy and Climate Security in Economic Security, Islamabad Security Dialogue, Islamabad, Pakistan / Zoom. 2021

Status and Prospects for Carbon Pricing in the United States, Harvard Project on Climate Agreements and Sciences Po Paris, France / Zoom, 2021

Saving the Planet Cost-effectively, College of the Holy Cross, Worcester, MA / Zoom and Phi Beta Kappa, 2021

A Whole-of-Government Approach to Climate Policy, Wiener Conference Calls, Harvard Kennedy School, Cambridge, MA/Zoom, 2021

Looking Ahead: Benefit-Cost Analysis for Environmental Regulation, Resources for the Future, Zoom, 2020

Three Prongs for Prudent Climate Policy, IMF Campfire Talk, International Monetary Fund, Zoom, 2020

Saving the Planet Cost-effectively, University of the Pacific, Stockton, CA / Zoom and Phi Beta Kappa, 2020

Prospects of a Net-Zero Target for the United States, Thirteenth Integrated Assessment Modeling Consortium, Zoom, 2020

Saving the Planet Cost-effectively, University of the Pacific, Stockton, CA / Zoom, 2020
Greening Economic Stimulus: Lessons from the 2009 Recovery Act, Conversations on Climate
and Energy Policy: A Virtual Forum, Harvard Project on Climate Agreements, Zoom, 2020

Saving the Planet Cost-effectively, Harry S. Truman School of Public Affairs, University of Missouri, Columbia, MO and Phi Beta Kappa Society / Zoom, 2020

Energy Policy Institute, National Governors Association, Washington DC / Zoom, 2020

Climate Policy and Stimulus Initiatives, Pricing Carbon Dialogue, Washington DC / Zoom, 2020

Energy, Stimulus, and Post-Covid Recovery Measures, International Energy Agency Webinar, Paris / Zoom, 2020

- Lessons from the 2009 Recovery Act Clean Energy Package, Briefing for Members, U.S. House of Representatives Select Committee on the Climate Crisis, Washington DC / Zoom, 2020
- Addressing Competitiveness under Federal Climate Action Workshop, C2ES, Washington DC / Zoom, 2020
- U.S.-China Economics and Climate Expert Dialogue, Energy Foundation China, Beijing / Zoom, 2020
- Global Climate Change Policy Side Event, UN Framework Convention on Climate Change Conference of the Parties, Madrid, Spain, 2019
- Realizing the Potential of Article 6 Side Event, UN Framework Convention on Climate Change Conference of the Parties, Madrid, Spain, 2019
- International Coordination in Efforts of Climate Change Response Measures Side Event, UN Framework Convention on Climate Change Conference of the Parties, Madrid, Spain, 2019
- Reducing Greenhouse Gas Emissions through Carbon Pricing Side Event, UN Framework Convention on Climate Change Conference of the Parties, Madrid, Spain, 2019
- How to Place a Price on Carbon, Aspen Ideas Festival, The Aspen Institute, Aspen, CO, 2019
- Policy Interactions with National Carbon Pricing, Listening Sessions on Next Generation of Climate Policy, Partnership for Responsible Growth/National Wildlife Federation/Pew Charitable Trusts, Washington, DC, 2018
- Energy in America: The Changing Role of Energy in the U.S. Economy Workshop, Center for Strategic and International Studies, Washington, DC, 2018
- Are the Promises of the Paris Climate Agreement Perishing? A Spotlight on the EU, US, and China, Center for European Studies, Harvard University, Cambridge, MA, 2018
- Implementing the Paris Agreement, American Enterprise Institute, Washington, DC, 2018
- Achieving Significant Emissions Reductions with Carbon Pricing Policy, Listening Sessions on Next Generation of Climate Policy, Partnership for Responsible Growth/National Wildlife Federation/Pew Charitable Trusts, Washington, DC, 2018
- Dialogue on Next Generation of Climate Policy, Partnership for Responsible Growth/National Wildlife Federation/Pew Charitable Trusts, Washington, DC, 2018
- Can Regulation Learn from Disaster? Lessons from Oil Spills, Nuclear Accidents, and Financial Crises, Rethinking Regulation Program at the Kenan Institute for Ethics, Duke University, Washington, DC, 2018
- Carbon Pricing Policy Design, Side Event, UN Framework Convention on Climate Change Conference of the Parties, Bonn, Germany, 2017
- New Developments in Regulatory Benefit-Cost Analysis Symposium, Society for Benefit-Cost Analysis/Administrative Conference of the United States, George Washington University, Washington, DC, 2017
- 20<sup>th</sup> Energy and Climate Research Seminar, Electric Power Research Institute, Washington, DC, 2017
- Federal Energy Related Tax Policy and Its Effects on Markets, Prices, and Consumers, Hearing before the Energy Subcommittee of the Energy and Commerce Committee, U.S. House of Representatives, Washington, DC, 2017
- Is There Deal Space for Carbon Pricing in 2017?, The Hoover Institution, Washington, DC, 2017 Long-term Carbon Pricing Policy: The Great Swap, Energy and Climate: The Art of the Deal?

  Event, Progressive Policy Institute, Washington, DC, 2016
- The Paris Agreement's Transparency Framework: A Building Block for Enhanced Mitigation, Side Event, UN Framework Convention on Climate Change Conference of the Parties, Marrakech, Morocco, 2016

- Transparency, Policy Surveillance, and the Comparison of Mitigation Effort, Side Event, UN Framework Convention on Climate Change Conference of the Parties, Marrakech, Morocco, 2016
- Urban Policies to Implement and Finance Nationally Determined Contributions under the Paris Agreement, Side Event, UN Framework Convention on Climate Change Conference of the Parties, Marrakech, Morocco, 2016
- Online Debate: COP21 Results and Perspectives, Florence School of Regulation/European Union Institute, 2015
- Merits and Challenges of Declining Discount Rates, Workshop on Discounting the Future, Council of Economic Advisers, Executive Office of the President, Washington, DC, 2015
- Climate Change Series: Next Steps for Intended Nationally Determined Contributions (INDCs), Center for Strategic and International Studies, Washington, DC, 2015
- Retrospective Review Workshop, Administrative Conference of the United States, Washington, DC, 2015
- Fuel Subsidy Reform Workshop, Council on Foreign Relations, Washington, DC, 2015
- The U.S.-China Dialogue on the Global Economic Order, Center for Strategic and International Studies and Shanghai Institutes for International Studies, Washington, DC, 2015
- Looking Ahead toward Paris: International Perspectives on National Commitments (two talks), MISTRA Indigo/Embassy of Sweden/Resources for the Future, Washington, DC, 2015
- Workshop on the Analysis and Management of Energy and Environmental Policy, Harvard Kennedy School and the Enel Foundation, Cambridge, MA, 2015
- Effective Frameworks and Measures for Climate Change Way to COP21, ALPS International Symposium, Research Institute of Innovative Technology for the Earth and Ministry of Economy, Trade, and Industry, Tokyo, Japan, 2015
- Paris 2015: The Process and Substance of the Negotiations, Center for Strategic and International Studies, Washington, DC, 2015
- Toward a Global Climate Agreement: Comparing Countries' Levels of Effort, Resources for the Future, Washington, DC, 2015
- New Methods for Comparing Mitigation Effort, Side Event, UN Framework Convention on Climate Change Conference of the Parties, Lima, Peru, 2014
- Retrospective Review of Agency Rules, 61<sup>st</sup> Plenary Session, Administrative Conference of the United States, Washington, DC, 2014
- Evolving Approaches for Valuing the Benefits of Consumer Protection Regulations Workshop, Consumer Financial Protection Bureau, Washington, DC, 2014
- Retrospective Review of Agency Rules, Meeting of the Council of Independent Regulatory
  Agencies, hosted by the Administrative Conference of the United States, Washington,
  DC, 2014
- Energy Policy: Looking Back, Looking Forward, Center for Strategic International Studies, Washington, DC, 2014
- Accelerating the Transition to a Clean Energy Economy, hosted by Environmental Entrepreneurs, Boston, MA, 2014
- Pricing Carbon, Babson College, Wellesley, MA, 2013
- Energy: From the Last to the Next 150 Years, Sesquicentennial Symposium, Boston College, Boston, 2013
- Expanded Natural Gas Production: Impacts on New Pathways for Climate Change Mitigation,
  Bipartisan Policy Center Series on the New Geopolitics of Petroleum and Natural Gas,
  Washington, DC, 2013

- The Green Agenda: Electricity and the Environment, Harvard Electricity Policy Group 72<sup>nd</sup> Plenary Session, Cambridge, 2013
- Understanding Regulation's Impact on Employment, Workshop Hosted by the Penn Program on Regulation, Washington, DC, 2013
- Briefing on the Results of the New Stanford Energy Modeling Forum Studies on U.S. and International Climate Policies, Architectures, and Technological Change, Washington, DC, 2013
- Keynote Address, Innovation in Electricity: Challenges and Opportunities, HBS Business and Environment Conference, Cambridge, MA, 2013
- 15 Ways to Rethink the Federal Budget: Addressing Entitlements, Taxation, and Revenues, The Hamilton Project, The Brookings Institution, Washington, DC, 2013
- Comprehensive Tax Reform and Climate Policy, Resources for the Future, Washington, DC, 2013 The Economics of Carbon Taxes Conference, American Enterprise Institute, Washington, DC, 2012
- Presidential Energy Debate (Obama Campaign Surrogate), MIT Energy Initiative, Cambridge, 2012
- Track 1.5 Meeting of U.S. and Chinese Experts on International Climate Policy, Hosted by the Department of State and the National Development and Reform Commission, Chicago, 2012
- Harvard Thinks Green 2, Harvard University, Cambridge, 2012
- Keynote Address, The Canada We Want in 2020 Squaring the Carbon Circle, Canada2020, Ottawa, Canada, 2012
- Evaluating Progress on the Climate Front, XXXIII MIT Global Change Forum, Arlington, VA, 2012 Institute of Politics 20<sup>th</sup> Bipartisan Program for Newly Elected Members of Congress, Cambridge, MA, 2012
- Fiscal Reform and Climate Protection: Considering a U.S. Carbon Tax, Peterson Institute for International Economics and Resources for the Future, Washington, DC, 2011
- Energy in a Carbon-Constrained World, Expogestion, Bogota, Colombia, 2011
- A Federal Clean Energy Standard: Understanding Important Policy Elements, Resources for the Future, Washington, DC, 2011
- Alternative Approaches to Climate Change, Aspen Energy Policy Forum, Aspen Institute, Aspen, CO, 2011
- A Cleaner Way to Power? Briefing hosted by the Subcommittee on Energy and Power, Energy and Commerce Committee, U.S. House of Representatives, Washington, DC, 2011
- U.S. and International Climate Change Policy Outlook, EPRI Global Climate Change Research Seminar, Washington, DC, 2011
- U.S. Climate Change Policy Outlook, GTSP Annual Meeting: The Role of Technology in Addressing Climate Change, Washington, DC, 2011
- State-Level Climate Policies: Lessons for National Efforts, Georgetown University Conference on Environmental Federalism: Current Issues and opportunities, Washington, DC, 2011
- Promoting Clean Energy in the American Power Sector, America's Energy Future: New Solutions to Fuel Economic Growth and Prosperity, The Hamilton Project, Washington, DC, 2011
- Confronting Domestic and Global Climate Strategies, XXXI MIT Global Change Forum, Brussels, Belgium, 2010
- Keynote Address, Estimating Employment Impacts of Energy and Environmental Policies and Programs: Lessons Learned and Future Directions, Nicholas Institute for Environmental Policy Solutions Workshop, Washington, DC, 2010

- Keynote Address, The Unconventional Gas Revolution Policy, Strategic, and Market Implications, Washington Energy Policy Conference, National Capital Area Chapter, U.S. Association for Energy Economics, Washington, DC, 2010
- Keynote Address, U.S. Climate Policy and Its Role in Financing REDD+. Forest Carbon Finance Summit 2010, Harvard Law School/Nicholas Institute/World Wildlife Fund, Washington, DC, 2010
- Keynote Address, Board of Directors Dinner, Resources for the Future, Washington, DC, 2009 The Right Climate for Agreement: Designing the Post-2012 World, Bruegel, Brussels, Belgium, 2008
- An Environmental Agenda for the Next Administration, Environmental Law and Policy Program Conference, University of Michigan, Ann Arbor, MI, 2008
- From Kyoto to Copenhagen: How Can the U.S. Lead on Climate Change, Progressive Policy Institute, Washington, DC, 2008
- Potential for a Global Carbon Market, Carbon Markets USA Conference, Washington, DC, 2008 The Climate Dialogue hosted by Prime Minister Rasmussen, Copenhagen, Denmark, 2008
- Business Environmental Leaders Council Annual Meeting, Pew Center on Global Climate Change, Washington, DC, 2008
- ZEW Wirtschaftsforum, Mannheim, Germany, 2008
- Addressing Climate Change: A Discussion of Policy Options Workshop, Georgetown Center for Business and Public Policy and the U.S. Climate Task Force, Washington, DC, 2008
- Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World,
  Briefing for United Nations Secretary-General Ban Ki-moon, United Nations, New York,
  NY, 2008
- Post-2012 International Climate Policy Architecture for Global Climate Change Workshop, Fondazione Eni Enrico Mattei, Venice, Italy, 2008
- Climate Change, Growth, and Poverty Session, PREM Conference: Inclusive and Sustainable Growth, The World Bank, Washington, DC, 2008
- Architectures for Agreement: Issues and Options for Post-2012 International Climate Policy, The Future of Climate Change: A Policy Preview Workshop hosted by Resources for the Future, San Francisco, CA, 2008
- International Climate Policy Seminar, Chinese Academy of Social Sciences, Beijing, China, 2008 International Climate Policy Seminar, Energy Research Institute, National Development and Reform Commission, Beijing, China, 2008
- International Climate Policy Seminar, Foreign Correspondents' Club of Japan, Tokyo, Japan, 2008
  International Climate Policy Seminar, 21st Century Public Policy Institute/Keidenran Workshop,
  Tokyo, Japan, 2008
- Value of a Statistical Life Workshop, Department of Homeland Security, Washington, DC, 2008 Global Roundtable on Climate Change, Earth Institute, Columbia University, New York, 2008
- What Price Energy Transformation: The Economics of Energy and Climate Change Seminar, hosted by the German Marshall Fund and EcoLogic, Washington, DC, 2008
- Domestic Climate Change Policy, Energy Policy Standing Committee, U.S. Conference of Mayors Winter Meeting, Washington, DC, 2008
- A Global Response to Climate Change, Presentation and Panel Discussion hosted by the Asia Society and the UN Foundation, New York, 2008
- Official Side Event, UN Framework Convention on Climate Change Conference of the Parties, Nusa Dua, Bali, Indonesia, 2007
- Climate Change Policy and Employment, Rockefeller Foundation Policy Impact Forum, presentations and briefings of representatives of six presidential campaigns, 2007

- The Road From Bali: Strategies for Post-Kyoto Global Climate Policy, Staff Briefing on UN Climate Change Conference in Bali hosted by the Select Committee on Energy Independence and Global Warming, Washington, DC, 2007
- Rethinking Climate Policy Workshop, AEI-Brookings Joint Center on Regulatory Studies, Washington, DC, 2007
- Strategies for Post-2012 Global Climate Policy, Roundtable Conversation at The Centre, Brussels, Belgium, 2007
- Federal Climate Policy Design Principles and Remaining Needs Workshop, American Meteorological Society, Washington, DC, 2007
- Carbon Tax vs. Cap-and-Trade, Energy Tax Workshop, McDermott, Will, and Emery LLP, Washington, DC, 2007
- The Road from Bali to Copenhagen, Brookings Institution Energy Security Roundtable, Washington, DC, 2007
- New Directions in Regulatory Policy, Mossavar-Rahmani Center for Business and Government, John F. Kennedy School of Government, Cambridge, MA, 2007
- Kyoto at 10: What's Next for International Climate Change Policy, Breakfast Briefing for Business Community hosted by Harvard University and Resources for the Future, New York, NY 2007
- Strategies for Post-Kyoto Global Climate Policy Briefing, Resources for the Future, Washington, DC 2007
- Laboratory Energy R&D Working Group Meeting, Department of Energy, Washington, DC, 2007 Economics of Climate Change Briefing for Democratic Budget Group, U.S. House of Representatives, 2007
- U.S. Climate Policy Forum, Resources for the Future, Washington, DC, 2007
- Council of Industrial Boiler Owners Environmental Committee Meeting, Washington, DC, 2007 The Stern Review and the Economic Analysis of Climate Change, Resources for the Future, Washington, DC, 2007
- Global Energy and Climate Change Policy and Research Symposium, UCLA Institute of Transportation Studies and UCLA Public Policy School, Lake Arrowhead, CA, 2006
- Global Dialogue on Natural Resources, Center for Strategic and International Studies and The Dialogue–UAE, Washington, DC, 2006
- Taking Measure of U.S. Energy Policy: A Review of the Energy Policy Act of 2005, Resources for the Future, Washington, DC, 2005
- NCEP Climate Workshop Series: Design-Issues in Market-Based GHG Reduction Strategies, National Commission on Energy Policy, Washington, DC, 2005
- Leaders' Summit on Post-Kyoto Architecture: Toward an L20?, Council on Foreign Relations, New York, NY, 2004
- Beyond Kyoto: Advancing the International Effort Against Climate Change Workshop, Pew Center on Global Climate Change, Cocoyoc, Mexico, 2003

#### **Conference and Workshop Panelist:**

- Decarbonization Decoded: The Corporate Finance, Macroeconomic, and Geopolitical Implications of Climate Change, Lazard Frères & Co., 28<sup>th</sup> Conference of the Parties, Dubai, United Arab Emirates, 2023
- Global Deep Decarbonization Technology Innovation and International Cooperation, Institute of Climate Change and Sustainable Development, Tsinghua University, 28<sup>th</sup> Conference of the Parties, Dubai, United Arab Emirates, 2023

- Taxing Climate Change and the Inflation Reduction Act, 116<sup>th</sup> Annual Conference on Taxation, National Tax Association, Denver, CO, 2023
- Lazard Climate and Energy Transition Conference, Lazard Frères & Co., New York, NY, 2023 Solar Geoengineering and International Security, Resources for the Future, Washington, DC, 2022
- Discounting the Future: Balancing the Financial, Environmental, Social Costs and Benefits of Climate Action, CGLN Youth Advisory Council Virtual Climate Week, New York / Zoom, 2022
- Practitioners' Perspectives, Looking Back: Using Retrospective Analysis to Improve Federal Environmental Regulation, Resources for the Future, Washington, DC / Zoom, 2022
- Building Climate Cooperation: The Critical Role for International Carbon Price Floors, The Brookings Institution, Washington, DC / Zoom, 2021
- EPA's Cost-Benefit Analysis Rule: Too Prescriptive?, Bipartisan Policy Center, Washington DC / Zoom, 2020
- Re-articulating Development Strategies: COVID19, Human Development, and the Environment, Center for International Development and the UN Development Programme, New York / Zoom, 2020
- Article 6 Economic Analysis Workshop, International Emissions Trading Association and University of Maryland, Washington, DC, 2019
- Energy in America: Economic and Social Opportunity in the United States, Center for Strategic and International Studies, Washington, DC, 2019
- Energy Research Insights for Decisionmaking Conference, Resources for the Future and the Alfred P. Sloan Foundation, Washington, DC, 2018
- Presidential Panel on Climate Change, Harvard University, Cambridge, MA 2015
- MIT Energy Conference, Cambridge, MA, 2013
- American Economic Association, Annual Meeting, Chicago, IL, 2012
- Innovative International REDD+ Partnerships Panel, High-Level Forest Climate Side Event, Avoided Deforestation Partners, COP-16, Cancun, Mexico, 2010
- Strategies for Low-Carbon Growth: Challenges and Opportunities in International Finance, Resources for the Future Side Event, COP-16, Cancun, Mexico, 2010
- The Road to and from Cancun, XXXI MIT Global Change Forum, Brussels, Belgium, 2010
- White, Blue, and Green Jobs Report Session, *National Journal* Workforce of the Future Conference, Washington, DC, 2010
- Design and Implementation of U.S. Climate Policy Conference, National Bureau of Economic Research, Washington, DC, 2010
- U.S. Climate Change Policy: What's Next After Copenhagen? 2010 Energy Conference: Short-Term Stresses, Long-Term Change. U.S. Energy Information Administration Annual Conference, Washington, DC, 2010
- Environmental and Energy Economics Workshop, National Bureau of Economic Research Summer Institute, Cambridge, MA, 2009
- Greenhouse Gas Emissions: What's Next? 2009 Energy Conference: A New Climate for Energy? U.S. Energy Information Administration Annual Conference, Washington, DC, 2009
- Containing Climate Change: Beyond Kyoto, Milken Institute Global Conference, Beverly Hills, CA, 2008
- Science & Society: Grand Challenges Climate Change, AAAS Symposium, Washington, DC, 2007

#### **Seminar/Workshop Organizer and Host:**

- Co-Organizer, Solar Geoengineering Futures: Interdisciplinary Research to Inform Decisionmaking Workshop, Resources for the Future, Washington, DC 2023
- Co-Organizer and Co-Host, Harvard Climate Economics Pipeline Workshop, Harvard Kennedy School, Cambridge, MA, 2023
- Co-Organizer and Co-Host, Political Economy of Climate Change Policy Workshop, Harvard Kennedy School, Cambridge, MA, 2022
- Co-Organizer and Co-Host, Harvard Workshop on the Economics of the Clean Air Act in Commemoration of the 50<sup>th</sup> Anniversary of the Act, 2021
- Co-Organizer and Co-Host, Climate-Oriented Economic Recovery Workshop Series, Resources for the Future, 2020
- Co-Organizer and Co-Host, Solar Radiation Management Dialogue Series, Resources for the Future, 2020

Organizer and Host, Regulatory Policy Seminar, Harvard Kennedy School, 2011-present

Organizer and Host, Energy Policy Seminar, Harvard Kennedy School, 2019-present

Organizer and Host (2019) and Program Committee Member, Northeast Workshop on Energy Policy and Environmental Economics, 2018-2019, 2021-23

Organizer and Host, Faculty Lunch Seminar, Harvard Kennedy School, 2016

Co-Organizer and Program Committee Member, *Frontiers of Environmental Economics*Conference, Resources for the Future, Washington, DC, 2007

Co-Director, International Energy Workshop, 2006-2008

Organizer and Host, Academic Seminar, Resources for the Future, 2006-2008

#### **Conference Session Moderator/Facilitator/Host:**

Solar Geoengineering Futures: Interdisciplinary Research to Inform Decisionmaking, Resources for the Future, Washington, DC, 2023

Lazard Climate and Energy Transition Conference, Lazard Frères & Co., New York, NY, 2023 Harvard 2022 Bipartisan Program for Newly Elected Members of Congress, Cambridge, MA,

2022

Political Economy of Climate Change Policy Workshop, Harvard Kennedy School, Cambridge, MA, 2022

Lazard Climate Conference, Lazard Frères & Co., New York, NY, 2021

Harvard Workshop on the Economics of the Clean Air Act in Commemoration of the 50<sup>th</sup> Anniversary of the Act, Zoom, 2021

BP/HKS/Tufts Fletcher School Symposium on Climate and Energy Policy, Zoom / Cambridge, MA, 2020

Carbon Tax Policy, American Economic Association Annual Meeting, San Diego, CA, 2020

Lessons from the Clean Air Act: Building Durability and Adaptability into U.S. Climate and Energy Policy, American Academy of Arts & Sciences, Washington, DC, 2019

BP/HKS/Tufts Fletcher School Symposium on Energy Policy, Cambridge, MA, 2018

Climate-Related Disclosure: Making it Work for Companies and Investors, Harvard Law School, Cambridge, MA, 2018

AERE/American Economic Association, Annual Meeting, Philadelphia, 2018

Nudging Toward a Cleaner Future, Harvard Kennedy School, Cambridge, MA, 2016

National Tax Association Annual Conference, Boston, MA, 2015

The Future of Low-Carbon Road Transport: What Role for Second-Generation Biofuels? Harvard Kennedy School, Dearborn, MI, 2015

Climate Shock, a Book Event Conversation with Gernot Wagner, Columbia University Center for Global Energy Policy, New York, NY, 2015

The Society for Benefit-Cost Analysis Annual Conference, Washington, DC, 2015

AERE/American Economic Association, Annual Meeting, Philadelphia, 2014

Plenary Address by Commissioner Connie Hedegaard, European Conference at Harvard University, Boston, MA, 2013

MIT Energy Conference, Boston, MA, 2012

GreenGov Symposium, Council on Environmental Quality, Washington, DC, 2010

International Energy Workshop hosted by the International Energy Agency, Paris, France, 2008

Post-2012 International Climate Policy Architecture for Global Climate Change Workshop, Fondazione Eni Enrico Mattei, Venice, Italy, 2008

International Energy Workshop hosted by the Stanford Energy Modeling Forum, Palo Alto, CA, 2007

Third World Congress of Environmental and Resource Economists, Kyoto, Japan, 2006
International Energy Workshop hosted by the University of Cape Town Energy Research Centre,
Cape Town, South Africa, 2006

## Testimonies:

The Role of Fossil Fuel Subsidies in Preventing Action on the Climate Crisis, Hearing before the Subcommittee on Environment, U.S. House of Representatives Committee on Oversight and Reform, Washington, DC / Zoom, 2021

<u>Federal Energy Related Tax Policy and Its Effects on Markets, Prices, and Consumers</u>, Hearing before the Energy Subcommittee of the Energy and Commerce Committee, U.S. House of Representatives, Washington, DC, 2017

<u>China's Energy Policies and Environmental Impacts</u>, Hearing before the U.S.-China Economic and Security Review Commission, Washington, DC, 2008

Economic Implications of Climate Policy, North Carolina Legislative Commission on Global Climate Change, Raleigh, NC, 2006

# **Commencement Addresses:**

<u>Nicholas School of the Environment</u>, Duke University, Durham, NC, 2010 The Lexington School, Lexington, KY, 2010

#### Media – Interviews and Podcasts:

Joe Aldy on the Complex Economics of the Clean Energy Transition, HKS PolicyCast, 2023 (podcast)

Climate Spending Czar, Living on Earth, 2022 (radio)

A Green Lining to a Global Crisis? Harvard Advanced Leadership Initiative Social Impact Review, 2022

Climate and Infrastructure, Living on Earth, 2021 (radio)

<u>Joe Aldy on How Joe Biden Can Jumpstart the Global Climate Effort</u>, HKS PolicyCast, 2020 (podcast)

<u>Greener Stimulus? Economic Recovery and Climate Policy</u>, Columbia Energy Exchange, Center on Global Energy Policy, Columbia University, 2020 (podcast)

Climate and the Biden Transition, Living on Earth, 2020 (radio)

China Leads on Climate, Living on Earth, 2020 (radio)

Key Conversations with Phi Beta Kappa, Phi Beta Kappa Society, 2020 (podcast)

<u>Candidate Tracker: The Big Picture on Candidates' Climate Policy Plans</u>, Resources Radio, 2019 (podcast)

<u>The Politics of Climate Change: A Conversation with Joseph Aldy,</u> Environmental Insights Podcast, 2019 (podcast)

Reviewing the Climate Crisis Town Hall, Living on Earth, Public Radio International, 2019 (radio) Fossil Fuels, Climate Change, and Subsidizing Pollution: An Interview with Dr. Joseph Aldy, What's the Res?, 2019 (podcast)

<u>U.S. Nixes G20 Climate Finance Declaration</u>, *Living on Earth*, Public Radio International, 2017 (radio)

Breaking Down Clinton's Climate Approach, Living on Earth, Public Radio International, 2016 (radio)

Renewable Energy Boosted in Federal Budget Compromise, Living on Earth, Public Radio International, 2016 (radio)

Energy Policy in the New Year, Living on Earth, Public Radio International, 2015 (radio)

Why the Job Market Actually Improved after the BP Oil Spill, Washington Post, 2014 (transcript of interview; press)

Fossil Fuel Subsidies under Fire, Living on Earth, Public Radio International, 2013 (radio)

<u>Saving Money with Environmental Regulation</u>, *Living on Earth*, Public Radio International, 2013 (radio)

U.S. Fossil Fuel Subsidies, Commodities, Business News Network (Canada), 2013 (TV)

The Economics of a Carbon Tax, Living on Earth, Public Radio International, 2012 (radio)

Energy and Climate Policy, Power and Politics, CBC (Canada), 2012 (TV)

On the U.S. Energy Debate, 92<sup>nd</sup> Street Y (and Huffington Post), 2012 (TV)

<u>America 2021: What Next on Climate? Democracy: A Journal of Ideas</u> 21: 40-58, 2011 (transcript of roundtable conversation; press)

Q&A Joe Aldy: Climate Legislation Must Be Kept Simple. Nature 470: 451, 2011 (press)

Future of U.S. Climate Policy, BBC World News, BBC Radio, 2008 (radio)

Climate Policy, Dialogue, CCTV-9 (China state-run English language TV network), 2008 (TV)

#### Media – Quotes and Research References in Press:

Domestic Climate Policy

Yellen Pushes Treasury, World Bank to Fuller Climate Reckoning, Bloomberg, September 19, 2023

An Early Obstacle for Climate Law: Hiring, Politico, October 11, 2022

The Climate Law – and Its Billions – Changed Everything, Greenwire, October 7, 2022

<u>Tesla, Toyota Accuse Biden's EV Tax Credit of Putting Unions over the Environment</u>, Wall Street Journal, November 18, 2021

<u>Biden Crafts a Climate Plan B: Tax Credits, Regulation and State Action, New York Times, October</u> 23, 2021

Joe Manchin Is about to Make Life Worse for His Own Constituents – and the Planet, Vanity Fair,
October 18, 2021

<u>Is Cost-Benefit Analysis the Right Tool for Federal Climate Policy?</u>, Yale Climate Connections, October 14, 2021 <u>This Powerful Democrat Linked to Fossil Fuels Will Craft the U.S. Climate Plan, New York Times,</u> September 20, 2021

<u>'Seriously Flawed': Experts Clash over Social Cost of Carbon</u>, *ClimateWire*, August 24, 2021

Democrats Call for a Tax on Imports from Polluting Countries, New York Times, July 15, 2021

The Marriage Between Republicans and Big Business Is on the Rocks, New York Times, April 14, 2021

<u>How the Oil Lobby Learned to Love Carbon Taxes</u>, *Bloomberg Green*, March 4, 2021

NC Environmental Official a Contender to Lead EPA in Biden Administration, Sources Say, Raleigh News & Observer, December 16, 2020

<u>For Biden's Economic Team, An Early Focus on Climate</u>, *New York Times*, December 11, 2020 <u>Yellen Gets a Shot to Put Treasury Clout into Climate Fight</u>, *Bloomberg Green*, December 11, 2020

What Obama's Climate Czar Can Do for Biden, E&E News, December 1, 2020

Can Joe Biden Make Good on His Revolutionary Climate Agenda?, Nature, November 25, 2020

So How Much Change Can Biden Bring on Climate Change?, The Harvard Gazette, November 24, 2020

The 40 Things Biden Should Do First on Climate Change, Bloomberg Green, November 11, 2020

<u>Biden-linked Team Rolls Out Climate Plan</u>, *E&E News*, November 11, 2020

HKS Prof. Aldy Talks Clean Energy, Economic Policy at Belfer Center Webinar, Harvard Crimson, October 20, 2020

Bernie Sanders's Climate Record in Congress: Lots of Advocacy, No Compromise, Washington Post, March 12, 2020

Economists Pitch Hybrid Carbon Tax, Cap Plan to Win Bipartisan Appeal, Inside EPA, March 11, 2019

Analysts Raise Questions about Pascrell's Request for 232 Probe into Carbon Emission Imports, Inside U.S. Trade, March 11, 2019

How to Think about the Costs of Climate Change, New York Times, January 17, 2019

Why Red and Blue States Divide Over Green Policy, CNN, September 4, 2018

<u>There's One Reason Not to Completely Freak Out about Trump's Effort to Reverse Obama-era</u> Climate Change Policies, *Business Insider*, October 26, 2017

Is Trump's Climate Change Agenda Politically Sustainable, The Atlantic, June 1, 2017

Why Democrats Should Work with Trump, New York Times, March 30, 2017

Despite Long Odds, Experts Game Carbon-Pricing Scenarios, ClimateWire, March 30, 2017

The Hillary Clinton Environmental Scorecard, Outside Online, October 17, 2016

7 Questions about the "Three Amigos" Energy Deal, ClimateWire, June 30, 2016

Biggest Methane Leak in U.S. History at Old California Well, ClimateWire, February 26, 2016

Obama Looks to the Future on Climate, ClimateWire, January 2016

Why Can't Republicans Support a Carbon Tax? The New Yorker, November 2015

Measures of Progress in Paris Talks Can't Be Pinned to Numbers, ClimateWire, September, 2015

"With Certainty" Cap-and-Trade Would Wreck the Economy, Rubio Says, Tampa Bay Times PolitiFact.com, April 23, 2015

Climate Change Solutions, Harvard Magazine, April 15, 2015

Climate Change Panel Addresses Divestment, Harvard Crimson, April 14, 2015

Sizing Up Climate Change, Harvard Gazette, April 13, 2015

Target: Climate Change, Harvard Gazette, March 24, 2015

Former Obama Advisers Seek to Open and Globalize the Measures for the Social Costs of Carbon, ClimateWire, December 8, 2014

Fighting for the Future, Environment@Harvard, Fall 2013

Caring About Climate -- Close to Home, Environment@Harvard, Fall 2013

Role of Gas Will Be Limited in Climate Change Battle, Experts Note, Oil and Gas Journal, October 9, 2013

What Now? Nature Climate Change, April 25, 2013

Economists Slice, Dice Carbon Tax at Forum, Greenwire, February 28, 2013

What Four More Years of the Obama Administration Means for Environmental Policy, Audubon Magazine, January-February 2013

Bipartisan Steps Urged on Climate Change Policy, Boston Globe, November 19, 2012

A Carbon-Tax Deal? Watch EPA, National Journal Daily, November 19, 2012

<u>Treasury Official Says Obama Has No Plan for Carbon Tax Support without Republican Support,</u> *Bloomberg BNA Daily Environment Report*, November 14, 2012

<u>Bloomberg Endorses Obama Over Climate Change. Does Obama Deserve It?</u> Washington Post blog, November 1, 2012

Emergency Planning: From Harvard Specialists, Green Thinking with a Sense of Urgency, Harvard Gazette, September 19, 2012

What Explains the Carbon Gap Between Rich and Poor States? *Greenwire*, January 23, 2012

Americans Would Pay More for Clean Energy. Would Congress?, Washington Post Wonkblog,
May 14, 2012

Willing to Pay (a Little) More for Clean Energy, New York Times Green Blog, May 14, 2012 Study: Public Willing to Pay for More Green Energy, The Hill E2 Wire, May 14, 2012

You've Got to Start Somewhere: A Climate Prescription, New York Times Green Blog, May 18, 2011

New "Clean Energy Standard" Plan from Former White House Wonk, Science, May 24, 2011 "Cap and Trade" Impact on U.S. Competitiveness Modest: Study, Agence France-Presse (AFP), May 6, 2009

<u>Candidates Call Climate Change an "Urgent" Priority</u>, *National Public Radio*, August 13, 2008 What Obama Electricity Tax? *Washington Post*, July 30, 2008 Climate Politics: Beyond Bush, *Nature*, November 14, 2007

International Climate Change Policy

How Climate Talks in Egypt Could Affect Your Business, Inc., November 2022

<u>The Winter Olympics Could Highlight China's Innovative – and Troubling – Efforts to Control the</u>

<u>Weather</u>, *Washington Post*, January 24, 2022

<u>Heat Rising, Along with Urgency and Hope, as Climate Summit Nears, Harvard Gazette</u>, October 28, 2021

IMF: Carbon Price Floor Could Help Bring Tremendous Transformative Investment Opportunities, Forbes, June 18, 2021

Controlling the Global Thermostat, Harvard Magazine, November-December 2020

<u>U.S. Exits Paris Climate Accord after Trump Stalls Global Warming Action for Four Years,</u> *Scientific American,* November 4, 2020

<u>Towards a Three-Pronged Approach to Climate Policy</u>, *Economic Principals*, April 19, 2020 <u>Carbon Tax a Conscientious Approach for a Sustainable Future</u>, Channel NewsAsia, March 1, 2018

<u>Trump is Quietly Surrendering to China on Climate Change</u>, *Vice*, November 7, 2017

<u>Paris Agreement: Tillerson Lost Big. Will He Have Clout under Trump</u>? *ClimateWire*, July 5, 2017

<u>A Blessing to Slow Climate Change</u>, *Harvard Gazette*, June 18, 2015

<u>Getting a Fair Deal</u>, *Nature Climate Change*, June 2015

<u>The New Math -- in the next months, nations will begin comparing their targets for Paris</u> <u>talks</u>, *ClimateWire*, February 5, 2015

U.S. Climate Diplomats Get a New Chance to Find Common Ground with Allies, ClimateWire, November 8, 2012

U.S., China Climate Standoff Returns, Reuters, September 24, 2012

Vital Statistics, Nature Climate Change, October 27, 2011

<u>Bush's Much-Maligned Climate Talks Could Yet Help Global-Warming Treaty</u>, Christian Science Monitor, January 30, 2008

Bumpy Ride Ahead for Bali Road Map, Asia Times Online, December 18, 2007

<u>Bush Clings to Anti-Kyoto Stance Ahead of Climate Talks</u>, *Agence France-Presse* (AFP), November 30, 2007

## Energy Policy

The U.S. Needs a Green Stimulus – But Not Right Now, MIT Technology Review, July 28, 2020 Obama's Recovery Act Breathed Life into Renewables. Now They Need Rescuing, Grist, June 1, 2020

Should We Spend Billions on Clean Energy? It Worked During the Last Crisis, L.A. Times, April 10, 2020

With California Voters Focused on Climate, Biden Touts Obama-Era Energy Investments, KQED, February 5, 2020

<u>Texas City Leaders Face Wrath of Residents over Green Energy Deal</u>, U.S. News and World Report, March 28, 2019

Why Georgetown's Green Energy Gamble Didn't Pay Off, Austin American-Statesman, February 23, 2019

The Green New Deal is Fueling a Wild Democratic Policy Primary, Axios, February 20, 2019

Fossil Fuel Subsidies Head Back Up after Years of Decline, Axios, October 31, 2018

Trump Casts a Long Shadow on the Solar Industry, Boston Globe, December 5, 2017

The Real Cost of Energy, Nature 551: S145-S147, November 30, 2017

IRS is an Energy Agency, and Many Say That's Bad, Climatewire, May 5, 2017

Renewable Energy Tax Cut Rewrite May be Uphill Battle for GOP, Washington Times, April 16, 2017

Exxon's Tax Wars Entangle Tillerson in Potential Conflicts, Energywire, January 10, 2017

The Burning Debate Over Fossil Fuel Subsidies, The Washington Diplomat, September 2016

India's Energy Subsidy Slowdown, Nature Energy, May 2016

After Oil Spill, Local Economy Defies Doomsday Forecasts, Houma (LA) Courier, April 19, 2015

Obama Claims U.S. Has Doubled Production of "Clean Energy," Tampa Bay Times Politifact.com,
January 20, 2015

How Washington Bungled the Solyndra Story, National Journal, November 17, 2014

U.S. Expects \$5 Billion from Program that Funded Solyndra, BusinessWeek, November 12, 2014

Federal Clean-Energy Loan Guarantees Go Begging: Energy Department Hopes to Drum Up

Interest, but Companies Are Wary, The Wall Street Journal, September 2014

The Fix in Fossil Fuels, Harvard Magazine, January 2014

Role of Gas Will be Limited in Climate Change Battle, Experts Note, Oil & Gas Journal, October 9, 2013

What People Close to Obama Think About the Keystone XL Pipeline, National Journal, May 5, 2013

The Experts: Should the Government Finance New-Energy Technologies, Wall Street Journal, March 28, 2013

Goldman Sachs: Sorry, U.S. Manufacturing Isn't Coming Back, Washington Post Wonkblog, March 25, 2013

America's Most Obvious Tax Reform Idea: Kill the Oil and Gas Subsidies, The Atlantic, March 19, 2013

Washington Needs Smarter Policy than Sequester, Boston Globe, March 2, 2013

<u>Brookings Recommends Carbon Tax, Cutting Some Regs</u>, *Politico Morning Energy*, February 26, 2013

<u>Brookings Wants to Revamp the Federal Budget: Here Are Its 11 Best Ideas</u>, Washington Post Wonkblog, February 25, 2013

Solyndra Stunk. The Green Stimulus Didn't, Washington Post Wonkblog, January 9,2013

Both Romney and Obama Avoid Talk of Climate Change, New York Times, October 25, 2012

<u>Want a More Substantive Obama-Romney Debate on Energy and Climate?</u> Read This, *Washington Post Wonkblog*, October 24, 2012

Romney, Obama Reps Square Off Over Energy Plans in Debate, Christian Science Monitor, October 10, 2012

Romney, Obama Surrogates Debate Energy and Climate Priorities, Greenwire, October 8, 2012

Reps for Obama, Romney, Debate Energy and Climate, Nature News Blog, October 6, 2012

Obama Returns to Iowa as Lead Slips in State, National Journal Daily, August 31, 2012

Obama Campaign: Romney Energy Plan for "Big Oil," Politico, August 23, 2012

The Revival of Big Red, National Journal Daily, May 31, 2012

Risky Business, National Journal Daily, September 21, 2011

Footing the Bill, National Journal, March 31, 2011

The Price is Not Right, National Journal, March 19, 2011

U.S. Pushes, but Reactors Are Lagging, New York Times, January 31, 2011

Climate: Speaking the Truth on Avoided Deforestation and Warming in Cancun, *Time*, December 9, 2010

Gulf Region Eyes Recovery as Oil Spill Losses Mount, *USA Today*, September 20, 2010 Obama Aide Urges Listing of Gas-Drilling Chemicals, *Reuters*, March 10, 2010

#### Regulatory Policy

<u>Trump's Claim His Deregulatory Actions Are Saving American Households \$3,000 a year,</u> *Washington Post*, August 15, 2019

Cosmic Markdown: EPA Says Life Is Worth Less, Washington Post, July 19, 2008

#### **Teaching Experience:**

# Assistant Professor of Public Policy / Associate Professor of Public Policy / Professor of the Practice of Public Policy

API-102, Economic Analysis of Public Policy, Harvard Kennedy School, 2011–2014, 2016-2021

API-164, Energy Policy Analysis, Harvard Kennedy School, 2012–2014, 2016-2019

API-165, Energy and Environmental Economics and Policy, Harvard Kennedy School, 2020-21, 2023-24

API-170, Managing Climate Change Risks: Information, Incentives, and Institutions, Harvard Kennedy School, 2023-24

#### **Adjunct Assistant Professor/Lecturer**

ECON 275, Environmental Economics, Georgetown University, 2007, 2008 PPOL 727, Economics of Climate Change, Georgetown Public Policy Institute, 2008 440-632, Benefit-Cost Analysis, Johns Hopkins University, 2007

#### **Executive Education/Short Course Instruction**

Harvard Climate Forum, 2023

Climate Change and Energy: Policy Making for the Long Term – Climate Policy and Energy Innovation Lectures, Harvard Kennedy School, 2016-2019, 2022-2023

Market-based Instruments for Pollution Control, Fletcher School of Law and Diplomacy, Tufts University, 2019

Berkeley Grad Camp – Economics of Climate Policy Lecture (half day), 2016 Short Course on International Economics of Climate Change (2 days), Sherman Kent School for Intelligence Analysis, 2008, 2011, 2013, 2014

#### **Guest Lecturer**

Colgate University (2021), Temple University (2021), College of the Holy Cross (2021), Harvard Kennedy School (2011, 2013, 2015-2020, 2022, 2023), Harvard Business School (2011-2020, 2023), University of Missouri (2020), University of the Pacific (2020), Harvard School of Public Health (2019), University of Pennsylvania (2016), Columbia University (2011, 2014, 2015), Carnegie Mellon University (2009, 2010, 2011, 2014), Harvard Law School (2004, 2011), Massachusetts Institute of Technology (2011), Yale University (2007), ALI-ABA Climate Change and the Law Short Course (2007, 2008), Johns Hopkins University (2006), Howard University (2005), Princeton University (1999), Duke University (1998, 2020)

#### **Teaching Fellow/Teaching Assistant**

EC 970, Economics of Climate Change, Sophomore Tutorial, Harvard University, 2002, 2003
EC 1410, Public Economics, Harvard University, 2003
EC 1010a, Intermediate Microeconomics, Harvard University, 2001
ENV 270, Resource and Environmental Economics, Nicholas School of the Environment, 1994
ENV 101, Introduction to Environmental Science and Policy, Duke University, 1994, 1995 (Head TA)

#### Journal Referee:

American Economic Journal – Applied Economics, American Economic Journal – Economic Policy, American Economic Review, American Economic Review: Insights, American Journal of Health Economics, B.E. Journals in Economic Analysis & Policy, Climate Policy, Climatic Change, Ecological Economics, Economics, Economics Bulletin, Economics of Energy and Environmental Policy, Economics Letters, Energy Economics, Energy Policy, Environment and Development Economics, Environmental Forum, Environmental and Resource Economics, European Economic Review, European Journal of Health Economics, Fiscal Studies, Foundations and Trends in Microeconomics, Global Environmental Change, Global Environmental Politics, International Economic Review, International Environmental Agreements, International Review of Environmental and Resource Economics, Journal of the Association of Environmental and Resource Economics, Journal of Benefit-Cost Analysis, Journal of Economic Theory, Journal of Environmental and Development, Journal of Environmental Economics and Management, Journal of Environmental Management, Journal of Health Economics, Journal of Human Resources,

Journal of Legal Analysis, Journal of Policy Analysis and Management, Journal of Political Economy, Journal of Public Administration Research and Theory, Journal of Public Economics, Journal of Risk and Uncertainty, Milbank Quarterly, Nature, Nature Climate Change, Nature Communications, Nature Energy, Nature Sustainability, Proceedings of the National Academy of Sciences, Quarterly Journal of Economics, Resource and Energy Economics, Review of Economic Studies, Review of Economics and Statistics, Review of Environmental Economics and Policy, Review of Policy Research, Science, Southern Economic Journal, The Energy Journal, Water Resources Research

#### Reviewer:

Academic Press:

Cambridge University Press Columbia University Press Oxford University Press

Routledge

The Handbook of Environmental Economics, Volume IV

#### Government:

Council of Economic Advisers

Department of Agriculture

Department of Energy

Department of Health and Human Services

**Department of Transportation** 

**Environmental Protection Agency** 

National Research Council / National Academies of Sciences, Engineering, and Medicine

**National Science Foundation** 

Office of Management and Budget

U.S. Carbon Cycle Science Steering Group

U.S. Global Change Research Program

 $Intergovernmental\ Organization:$ 

Intergovernmental Panel on Climate Change

International Monetary Fund

World Bank

Foundation:

Alfred P. Sloan Foundation

Smith Richardson Foundation

NGO/Research Center:

**Brookings Institution** 

Center on Global Energy Policy

Council on Foreign Relations

**Environmental Defense Fund** 

Pew Center on Global Climate Change

**World Resources Institute** 

World Wildlife Fund

Conferences and Workshops:

Northeast Energy Policy and Environmental Economics Workshop, 2018-2019, 2021-2023

European Association of Environmental and Resource Economists, 2021

American Economic Association Annual Meeting, 2020

World Congress of Environmental and Resource Economists, 2018

National Tax Association Annual Conference, 2017

World Congress of Environmental and Resource Economists, 2014

International Energy Workshop, 2006-2008

Frontiers of Environmental Economics Conference, 2007

#### Fellowships:

Joseph Crump Fellowship Program, 2013-2016, 2018-2020, 2022-2023

Harvard Environmental Economics Program Student Prizes, 2013, 2016, 2019

Switzer Fellowship Program, 2015

Morris K. Udall Foundation Dissertation Fellowship Competition, 2007, 2008

#### Member:

American Economic Association
Association of Environmental and Resource Economists
International Association for Energy Economics
National Tax Association
Society of Benefit-Cost Analysis

#### **Other Professional Activities:**

Member, OMB Circular A-4 Peer Review Committee, 2023

Member, BenMAP and Benefits Methods Panel of the EPA Science Advisory Board, 2022-2023

Member, Economic Guidelines Review Panel of the EPA Science Advisory Board, 2020

Member, American Economic Association Program Committee 2020 Annual Meeting, San Diego, 2019-2020

Co-chair, Mercury and Air Toxics Standards Review Committee to the External Environmental Economics Advisory Committee, 2019

Member, Government Accountability Office Expert Panel on Greenhouse Gas Emissions Trading, organized by National Academy of Sciences, 2008

Member, Government Accountability Office Expert Panel on Climate Change Economics, organized by National Academy of Sciences, 2007

Member, Government Accountability Office Expert Panel on the Strategic Petroleum Reserve, organized by National Academy of Sciences, 2006

Advisor, Progressive Policy Institute Energy and Environment Project, 2006-2008 Contributor, *ClimatePolicy* blog, <u>www.climatepolicy.org</u>, sponsored by AMS, 2007

#### **Consulting Experience:**

Administrative Conference of the United States, AllianceBernstein, American Economic Association, Amgen, Boston College, Cambridge University Press, Canada2020, Case Western Reserve University, Cato Institute, Center for American Progress, Center for Disease Dynamics

Economics and Policy, Center for Strategic and International Studies, Chevron, Council on Foreign Relations, Duke University, Electric Power Research Institute, Environmental Defense Fund, Environmental Health and Engineering, Environmental Law Institute, ExpoGestion 2011, External Environmental Economics Advisory Committee, Fondation pour les Etudes et Recherches sur le Développement International, Garten Rothkopf, GEMCLIME, Harvard Kennedy School, Health Canada, Hewlett Foundation, International Monetary Fund, Journal of Political Economy, Lazard Frères & Co., Massachusetts Institute of Technology, Moore Foundation, NERA, Office of the Prime Minister of Denmark, Government of Qatar, Pew Center on Global Climate Change, Phi Beta Kappa Society, Princeton University, Progressive Policy Institute, Property & Environment Research Center, Research Institute of Innovative Technology for the Earth, Resources for the Future, Rockefeller Foundation, SAIC/LEIDOS, Alfred P. Sloan Foundation, Smith Richardson Foundation, Stonehill College, The Hamilton Project, Tufts University, Udall Foundation, U.S. Department of Energy, U.S. Department of Health and Human Services, U.S. Department of Homeland Security, U.S. Environmental Protection Agency, University of Pennsylvania, University of North Carolina-Wilmington, Vanderbilt University, World Bank, World Wildlife Fund–United States

### **Graduate School Advisors:**

David Cutler (Harvard University)
Caroline Hoxby (Stanford University, formerly Harvard University)
Robert N. Stavins (Harvard Kennedy School)
W. Kip Viscusi (Vanderbilt University; formerly Harvard Law School)

## <u>Doctoral Advising – Dissertation Committees:</u>

Gabriel A.S. Chan, Associate Professor, Humphrey School of Public Affairs, University of Minnesota (graduated 2015)

Sabrina T. Howell, Associate Professor, Department of Finance, NYU Stern School of Business (2015)

Richard L. Sweeney, Associate Professor, Department of Economics, Boston College (2015) Samuel Stolper, Assistant Professor, School of Natural Resource and the Environment, University

of Michigan (2016)

Trisha Shrum, Assistant Professor, Department of Community Development and Applied Economics, University of Vermont (2016)

Jisung Park, Assistant Professor, School of Social Policy and Practice, University of Pennsylvania (2017)

Cuicui Chen, Assistant Professor, Department of Economics, SUNY-Albany (2018)

Todd Gerarden, Assistant Professor, Dyson School of Applied Economics and Management, Cornell University (2018)

Daniel Velez-Lopez, Commercial Director, Hydrogen and Low-Carbon, National Grid Partners (2019)

Megan Bailey, Assistant Professor, Haskayne School of Business, University of Calgary (2020) Daniel Stuart, Associate, The Analysis Group (2021)

Sarah Armitage, Assistant Professor, Questrom Business School, Boston University (2022)

Stu Iler, Manager of Energy and Climate Analysis, Massachusetts Executive Office of Energy and Environmental Affairs (2022)

Kristen McCormack, Office of Tax Analysis, Department of the Treasury (2023)