Biographies of Speakers and Moderators
Nineteenth Annual Endicott House Symposium
Opportunities for Technology and Policy Innovation in Energy and Environment
August 16-18, 2011
MIT Endicott House, Dedham, Mass

Praveen Amar

Dr. Praveen Amar recently joined Clean Air Task Force (CATF) as a Senior Policy Advisor, Technology and Climate Policy. CATF is a nonprofit organization dedicated to reducing atmospheric pollution through research, advocacy, private sector collaboration, and innovation. His current areas of focus are CATF's global action plan to identify barriers to and opportunities for methane emission reductions, both globally and domestically, and evaluating local and regional environmental impacts associated with Marcellus Shale gas development in western/central Pennsylvania. Before joining CATF in May 2011, Praveen worked with NESCAUM, a nonprofit association of air quality agencies in the Northeast for 19 years, including 16 years as its Director of Science and Policy. Before that, he worked for California Air Resources Board as a manager for various air pollution research, technology, and policy programs for 15 years. He is active in various national, regional, and academic advisory committees, including EPA's Clean Air Scientific Advisory Committee (CASAC) review panel on secondary National Ambient Air Quality Standards (NAAQS) for SO_2 and NOx, and Science Advisory Committee for NYSERDA's environmental program. He is also serving as a Board member on the National Academy of Sciences's *Board on Environmental Studies and Toxicology (BEST).*

He received his Ph.D. in engineering from the University of California, Los Angeles (UCLA). He is licensed professional engineer in the State of California. For real fun, he has taught graduate courses in atmospheric processes, air pollution policy, and mechanical engineering at the University of California, Davis, and at Tufts University. He has coordinated, moderated, spoken at, or co-chaired each and every Endicott House Symposium since 1993.

Anup Bandivadekar

Anup Bandivadekar is currently the passenger vehicle program lead with the International Council on Clean Transportation (ICCT). His interests are focused around developing frameworks and methods to foster innovative solutions towards achieving a more sustainable energy and transportation system.

At the ICCT, Dr. Bandivadekar's work is aimed at reducing air pollution and greenhouse gas emissions from passenger vehicles globally. Previously, Anup was a postdoctoral fellow in the Sloan Automotive Laboratory at the Massachusetts Institute of Technology (MIT), where he evaluated vehicle and fuel technologies that can significantly reduce

greenhouse gas emissions and petroleum consumption from the U.S. light-duty fleet over the next thirty years.

He holds a Bachelor of Engineering degree from University of Mumbai and a Master of Science Degree from Michigan Technological University in the field of Mechanical Engineering as well as a Master of Science in Technology and Policy and a Ph.D. in Engineering Systems from MIT.

Michael J. Bradley

Michael has more than 30 years of professional experience working on behalf of state and federal agencies, a diverse set of private sector companies and nonprofit organizations. He is known for his expertise in strategic policy development, business strategy, sustainability, and for having an in-depth understanding of environmental regulatory and legislative issues.

Michael formed MJB & Associates to provide private industry, nonprofit organizations, and government agencies with insightful advice on air quality and climate change policy. Michael provides assistance in establishing and meeting environmental goals and in developing business strategies to take advantage of emerging market opportunities. He also is known for successfully facilitating discussions among key stakeholders to achieve common objectives. In addition, Michael works with various advanced technology firms, assisting with the development of business plans to achieve successful market results.

Michael serves on a number of national air quality and climate change committees, including the National Academy of Sciences, Board on Environmental Studies and Toxicology.

In 1997, Michael founded the Clean Energy Group, which consists of electric generating and distribution companies committed to working with policy makers and other stakeholders to promote effective environmental policy options in the areas of air quality and climate change. Prior to founding MJB & Associates, Michael was Executive Director of Northeast States for Coordinated Air Use Management (NESCAUM) for 12 years. On behalf of northeastern states, he played a major role in shaping several key provisions in the 1990 Clean Air Act Amendments. Michael also has worked for state environmental agencies and for the British Department of the Environment. Michael holds a Bachelor degree, cum laude, from Boston College (1975) and a Master of Science degree in Environmental Management from the University of Washington (1979).

Steven Caputo

Steven Caputo is a Policy Advisor in the New York City Mayor’s Office of Long-term Planning and Sustainability, where he manages NYC’s Clean Heat Initiative and advises on energy supply and greenhouse gas reduction issues. A two-time fellow of the Design Trust for Public Space, Caputo coauthored NYC's High Performance Infrastructure Guidelines (2005) and Landscape Guidelines (2011). He is trained as an architect and holds a Master of Public Administration Degree from Columbia University.

Andrew Chu

Andrew Chu is Vice President, Marketing and Communications, at A123 Systems. In this role, he leads A123's corporate marketing organization. Since joining A123 in early 2003, he has served in multiple roles, including R&D, manufacturing support, applications engineering, program management, marketing and business development.

In 2009, he led the proposal team that resulted in a $249M award from the U.S. Department of Energy to support the company's U.S. battery manufacturing. He has spent the last 16 years working on lithium ion batteries.

Prior to joining A123 Systems, he was the Department Manager of the Energy Technologies Department at HRL (formerly Hughes Research Lab). He holds a Ph.D. in Materials Science and Engineering from the University of Pennsylvania and two engineering Bachelor's degrees from the University of Michigan.

Nuri Demirdoven

Nuri Demirdoven is an Associate Principal in the Houston Office of McKinsey & Company. Nuri joined McKinsey in May 2005. He is a member of North America Electric Power Practice and Sustainability and Resource Productivity Practice. He serves power, high-tech, industrial and private equity clients on Smart Grid topics ranging from growth strategy, technology strategy and regulatory strategy. He is one of the authors of McKinsey's recent publication on Smart Grid. Nuri received Ph.D. in Physical Chemistry and S.M. in Technology and Policy both from MIT.

Dianne Dumanoski

Dianne Dumanoski is an award-winning journalist and author who has reported on a wide range of environmental and energy issues for broadcast and print media since the first Earth Day in 1970.

While working for The Boston Globe, she was among the pioneers reporting on a new generation of global threats, including global warming, and covered the 1992 Earth Summit in Rio. She is the co-author of *Our Stolen Future*, a seminal work on the health effects of synthetic chemicals that act as endocrine disruptors.

Her latest book, *The End of the Long Summer*, explores what revolutionary changes in climate may mean for the kind of complex civilization humans have developed over the past 6,000 years.

Anthony Eggert

Anthony Eggert was appointed in February of 2011 by California Governor Jerry Brown to serve as Deputy Secretary for Energy Policy of the California Environmental Protection Agency where he currently oversees clean energy and environmental policy development for California. His prior positions within California government include serving as Commissioner of the California Energy Commission with responsibilities for transportation, energy efficiency, climate change, federal stimulus and several power plant siting cases and as Science and Technology Policy Advisor to the Chair of the Air

Resources Board helping to implement California's clean air laws including the Global Warming Solutions Act (AB32).

His career prior to state service includes advising the University of California on federal energy and climate policy, directing research on low-carbon fuels and vehicles at UC Davis' Institute of Transportation Studies, and as an engineer and then manager for Ford Motor Company working on emissions control, fuel economy, and advanced vehicle technologies including battery electric and fuel cell vehicles.

Anthony received a Bachelor of Science degree in mechanical engineering at University of Wisconsin Madison and Masters of Science Degree in Transportation Technology and Policy at University of California, Davis.

Tom Eizember

Tom Eizember is the Planning Division Manager of Corporate Strategic Planning for Exxon Mobil Corporation in Dallas, Texas. He holds a B.S. in Chemical Engineering, an MBA, and professional engineering registrations in California and Louisiana.

Tom played a key role in developing the National Petroleum Council's 2007 study for the Department of Energy "Facing the Hard Truths about Energy," which examines the outlook for U.S. and global oil, natural gas, and total energy to the year 2030. Tom is the Chairman of the Industry Advisory Board to the International Energy Agency in Paris, France, and serves on the Board of Advisors to the Institute of Transportation Studies at the University of California, Davis.

Richard Gibbs

Richard Gibbs developed the New York State Automotive Emissions Laboratory and founded the NYS Bureau of Mobile Sources (BMS) in a thirty-five year NYS-DEC career. His experimental research studies focused on emissions of user-owned vehicles and his research group contributed advances in the measurement and characterization of diesel particulate emissions and un-regulated emissions. During his tenure as the first Director of the BMS, NYS adopted the California Low Emission Vehicle (LEV) program, implemented innovative technical measurement advances in the NYS Inspection/Maintenance program and coordinated implementation of diesel particulate filters on the fleet of 4,500 MTA transit buses in New York City. This was the first large-scale successful demonstration of the application of diesel particulate filters in the US. As a charter member of EPA's *Mobile Sources Technical Advisory Committee,* Richard co-authored recommendations for improved engine, vehicle and fuel testing capabilities at the EPA National Fuels and Vehicle Emissions Laboratory. He founded the NESCAUM Mobile Sources Committee and was member of CARB's International Diesel Retrofit Advisory Committee. Dick and Shari live on an operating 135 acre farm with a 75 acre forest managed for sustainability. They are active in the New York State Forest Owners Association [NYFOA]. Dick consults for NYSERDA in clean-burning wood combustion testing and technology. He holds a B.Ch.E. from the University of Minnesota (1966) and Ph.D. in Chemical Engineering from Rensselaer Polytechnic Institute (1971), and is a licensed professional engineer in NYS. He is currently co-chair

of the annual MIT-NESCAUM Endicott House Symposium, organized within the MIT *Energy Initiative (MITEI).*

Jason Grumet

Jason Grumet is Founder and President of the Bipartisan Policy Center (BPC). Throughout his career, Jason has worked at the intersection of policy and politics. In 2007, with the leadership of former U.S. Senate Majority Leaders Howard Baker, Tom Daschle, Bob Dole and George Mitchell, he founded the BPC to develop and promote bipartisan solutions to the country's most difficult public policy challenges. Currently, the BPC conducts projects in the areas of energy and climate change, economic policy and the debt, national and homeland security, health care, and transportation policy. From 2001 to 2011 Jason directed the National Commission on Energy Policy (NCEP) which is now a project of the BPC. Prior to leading the NCEP, Jason was the Executive Director of NESCAUM, a nonprofit association of air quality agencies in the Northeast.

Jason is a frequent witness at Congressional hearings and regularly appears in print and electronic media. Jason received a Bachelor of Arts degree from Brown University and his Juris Doctorate from Harvard University. He lives with his wife, Stephanie, and their three children in Washington, D.C.

Jesse Jenkins

Jesse is a leading energy and climate policy analyst and advocate and manages the Breakthrough Institute's Energy and Climate Program. He is the lead author or co-author of numerous reports and analysis including "Energy Emergence: Rebound and Backfire as Emergent Phenomena," "Where Good Technologies Come From," "Post-Partisan Power," "Strengthening Clean Energy Competitiveness," "Rising Tigers, Sleeping Giant," "Jumpstarting a Clean Energy Revolution with a National Institutes of Energy," and widely cited analysis of Congressional climate change legislation. Jesse's work and analysis has been featured in Time, Newsweek, Fortune, New York Times, Wall Street Journal, Washington Post, and other major media outlets. He has appeared on National Public Radio, MSNBC, and in the pages of Forbes, Atlantic Monthly, San Francisco Chronicle, Yale Environment 360 and other publications. Jesse previously co-directed Breakthrough Generation, the Breakthrough Institute's youth leaders initiative, and prior to joining Breakthrough Institute in June 2008, worked at the Renewable Northwest Project to advance the development of the Pacific Northwest's abundant renewable energy potential.

Philip Johnson

Philip Johnson is a Senior Program Officer with the Heinz Endowments' Environment Program. He manages a grants portfolio and community initiatives that focus on environmental health.

Philip joined the Heinz Endowments in February 2009 while completing a doctorate in environmental health and risk management at Yale University. He has two master's degrees from Yale, one in environmental science and the other in public health, and received an undergraduate degree in philosophy from Northwestern University in 1991.

Outside of academics, Philip has worked for government agencies and nonprofits on air and water pollution issues. He founded the nonprofit Air Intelligence, a Washington state-based organization that provided scientific and legal expertise to communities facing serious contamination issues. He also worked for the U.S. National Park Service on salmon fisheries restoration in the Pacific Northwest.

Before beginning his doctoral work, Philip was a senior scientist and program manager for the Boston-based nonprofit organization, NESCAUM, which provides scientific analysis and policy advice to the air-quality agencies of the eight Northeastern states. His memberships include the American Public Health Association and the Society for Risk Analysis.

Timothy V. Johnson

Tim Johnson is Director – Emerging Regulations and Technologies for Corning Environmental Technologies, Corning Incorporated. Dr. Johnson is responsible for tracking emerging mobile emissions regulations and technologies, and helps develop strategic positioning via new products. He has been with Corning for 24 years, and 14 years in the current position. He is an acknowledged expert and frequent speaker on diesel emission control technology and trends. In that regard, he received the 2007 and 2009 Lloyd L. Withrow Distinguished Speaker Awards from SAE (Society of Automotive Engineers), and in 2008 was awarded the Fellow membership grade by SAE. He is a recipient of California's 2009 Haagen-Smit Clean Air Award.

Dr. Johnson is quite active in various advisory committee roles with various government agencies, universities, and private organizations. He earned his BS and MS Engineering Degrees from the University of Minnesota in 1978 and 1979, and his Doctor of Science from MIT in 1987.

Janet Joseph

Janet Joseph is the Vice President for Technology and Strategic Planning at the New York State Energy Research and Development Authority (NYSERDA*)*. Janet oversees a multifaceted energy research program focused on developing and accelerating the market introduction of emerging energy efficient and clean energy technologies in New York. Janet also oversees NYSERDA's energy analysis and planning functions. Janet has held a variety of technical and policy positions at NYSERDA over the past 20 years including R&D Director, Environmental Research Program Manager, Buildings Research Program Manager, and Research Scientist and Manager of Planning. Prior to joining NYSERDA, Janet was a research scientist at Battelle Pacific Northwest Laboratories. Janet has also worked as an environmental consultant for Booz-Allen and Hamilton in Washington, D.C. Janet has a Master's degree in Environmental Chemistry from the University of Maryland.

Melanie A. Kenderdine

Melanie A. Kenderdine joined the MIT Energy Initiative (MITEI) in March, 2007. She is a member of a three-person management team of this large and growing program, designed to help meet the world's energy challenges through research, education and outreach. In this capacity, she is a member of the research and analysis group for MIT's

Future of Natural Gas Study and is the rapporteur, report author and editor for the MITEI Symposium Series.

Before joining MITEI, she served as the Vice President of Washington Operations for the Gas Technology Institute. While at GTI, she was a co-founder of the Research Partnership to Secure Energy for America, a non-profit research management company, which now manages a $375 million federal research contract and has 170 consortium members.

From 1993 to 2001, Melanie served in several key posts at the U.S. Department of Energy (DOE) as an appointee of President Bill Clinton. Her last position at DOE was Director of the Office of Policy. Concurrently, she served as the Senior Policy Advisor to the U.S. Secretary of DOE for oil, gas, coal and nuclear issues. Prior to joining DOE, she worked as chief of staff and as legislative director for New Mexico Congressman Bill Richardson, who was later named US Secretary of Energy.

Ms. Kenderdine has testified before Congress on numerous occasions, most recently on ARPA-E and the Strategic Petroleum Reserve. She is a frequent speaker on energy issues, both in the US and internationally. In 2010, she delivered the Presidential Lecture at Boston University and was the first woman invited to the 2010 Rahmania Seminar on Energy in Saudi Arabia.

Matthew Lazarewicz

Matt Lazarewicz joined Beacon Power Corporation in 1999 as Vice President of Engineering, and has served as its Chief Technical Officer since 2002. Prior to joining Beacon, Matt worked for General Electric Company in various capacities. He started his 25-year career with the GE in the gas turbine division as a design engineer. After a transfer to GE Aircraft Engines, he progressed through a variety of positions in design, manufacturing, quality, marketing, and product support in both military and commercial applications. Most recently he served as a manager of program independent analysis from 1996 to 1999, and he was the mechanical design manager for the F414 engine used in the Navy front line F/A18 fighter. He won the GE Aircraft Engines "Engineer of the Year" and the Department of Defense "Excellence in Acquisition" awards for his leadership of this project. Matt is a Registered Professional Engineer in the Commonwealth of Massachusetts and received both B.S. and M.S. degrees in Mechanical Engineering from the Massachusetts Institute of Technology, as well as a Master's Degree in Management from MIT’s Sloan School of Management.

David L. Levy

David L. Levy is Chair of the Department of Management and Marketing at the University of Massachusetts, Boston. He teaches courses in international business, strategy, business and climate change, and business and society. He founded and is now Director of the Center for Sustainable Enterprise and Regional Competitiveness, whose mission is “to foster a transition to a clean, sustainable, and prosperous economy”. David’s research examines corporate strategic responses to climate change, the growth of the clean-energy business sector, and the emergence of carbon disclosure as a form of governance. He also writes about the role of business in the governance of contested

social and environmental issues. He was recently PI on a grant from the Massachusetts Clean Energy Center to develop sustainability education programs. He is also engaged in collaborative research on business and climate change with colleagues at the University of Oxford, the University of Western Sydney, and other institutions. He edits the blog *Climate Inc.* on business and climate change. David holds a DBA from Harvard University, an MBA from Tel Aviv University, Recanati School of Management, and an M.Sc. from Manchester University.

David Owen

David Owen has been a staff writer for The New Yorker for twenty years. Before that, he was a contributing editor of The Atlantic Monthly, and before that he was a senior writer for Harper's. His most recent book is *Green Metropolis: Why Living Smaller, Living Closer, and Driving Less Are the Keys to Sustainability*. His next book, which will be published in the fall, is *The Conundrum: Why Almost Everything You Think About the Environment is Wrong.*

Robert F. Sawyer

During his forty-three-year career at the University of California, Berkeley as a Professor of mechanical engineering, Dr. Sawyer's teaching and research included rocket propulsion, energy conversion, combustion, air pollution, and regulatory policy. He has authored or co-authored more than 350 publications including two books. He chaired the Energy and Resources Group and was selected to be the first Class of 1935 Professor of Energy at Berkeley. From 2003-2005 he headed the University of California Education Abroad Program in London. In January 2006, Dr. Sawyer left the University of California to accept the appointment by Governor Schwarzenegger to head the California Air Resources Board, a position he held through June 2007. Currently he is the Class of 1935 Professor of Energy Emeritus at UC Berkeley. He is a graduate of Stanford and Princeton universities. He received the Berkeley Citation and the American Society of Mechanical Engineers' Soichiro Honda Medal. He is a fellow of the Society of Automotive Engineers and a member of the United States National Academy of Engineering.

Susan Tierney

Sue Tierney, a Managing Principal at Analysis Group, is an expert on energy and environmental economics, regulation and policy. She previously served as the Assistant Secretary for Policy at the U.S. DOE, and held various senior positions in Massachusetts government (Secretary for Environmental Affairs; public utility commissioner; executive director of the Energy Facilities Siting Council). She co-chaired the DOE Agency Review Team for the Obama/Biden Presidential Transition Team. She chairs the Board of Directors of the Energy Foundation and NREL's Advisory Council. She is a member on the Secretary of Energy Advisory Board, and serves on its subcommittee studying environmental issues associated with shale gas development. She chairs the Policy Subgroup of the National Petroleum Council's study of the North American natural gas resources. She is a director of the World Resources Institute; Clean Air Task Force; Clean Air – Cool Planet; Evergreen Solar; EnerNOC; and Ze-gen. She previously co-

chaired the National Commission on Energy Policy and taught at the University of California at Irvine and at MIT. She earned her Ph.D. and M.A. degrees in regional planning at Cornell University.

Eric Toone

Dr. Eric Toone is the Deputy Director for Technology for the Advanced Research Projects Agency – Energy (ARPA-E), responsible for oversight of all ARPA-E Technology and directs the ARPA-E's Electrofuels program. In addition to his role at ARPA-E, Toone is currently the Anne T. and Robert M. Bass Professor of Chemistry and Professor of Biochemistry at Duke University. Toone is a scientific founder of two venture-backed companies: Aerie Pharmaceuticals, a research-based ophthalmology company, and Vindica Pharmaceuticals, a nitric oxide delivery company.

Toone has served as a permanent member of the Bioorganic and Natural Products Study Section at the National Institutes of Health, and is currently a member of the NSERC Organic & Inorganic Review panel (Canada). Toone has authored over 100 scientific papers and over 30 patents. He is an associate editor of the journal Biopolymers and the editor in chief of the monograph series Advances in Enzymology. He studied chemistry as an undergraduate at the University of Guelph, graduating in 1983. That same year he moved to the University of Toronto to begin graduate studies with Professor J. Bryan Jones. Toone graduated from the University of Toronto in 1988 and moved to Harvard University to continue his studies with Professor George Whitesides.

Johanna Wellington

Johanna leads a broad portfolio of advanced technology research focused on sustainable energy and water solutions. Specific research focus areas include renewables, carbon management, energy efficiency, smart grid enhancements, and low cost water solutions

Johanna joined GE Power Systems in 1992 as a Combustion Design Engineer. During her 6+ year tenure in Combustion Engineering, Johanna gained a strong technical foundation, earned her blackbelt certification and held roles of increasing responsibility. In 1998 she joined the Power Generation Technology Laboratory, first as Technical Leader then as Lab Manager. Johanna joined the Quality Organization in 2000 as a Master Blackbelt. In 2002 she accepted the role of General Manager, Accessory Systems Engineering and in 2004, she became the General Manager for the Generator & Electrical Systems Engineering Department. In March of 2010, Johanna joined the Research Center in her current role as Advanced Technology Leader for Sustainable Energy

Johanna earned a BS in Mechanical Engineering from Union College in 1992 and a Masters in Engineering from Rensselaer Polytechnic Institute in 1998.

Susan Wierman

Susan Wierman has been Executive Director of the Mid-Atlantic Regional Air Management Association (MARAMA) since 1996. MARAMA promotes regional collaboration among ten state and local air quality agencies, helps member agencies train staff and develop regional emissions inventories, and supports the Mid-Atlantic Diesel Collaborative. Before joining MARAMA, Susan served for eight years as Deputy

Director for the State of Maryland's air pollution control program. She began working in air quality planning in 1977 for the State of Minnesota. Susan is a Fellow Member of the Air and Waste Management Association and serves on the Editorial Advisory Committee for EM Magazine. She holds BA and Masters degrees in Urban Planning from the University of Washington in Seattle and a Certificate in Continuing Engineering Studies from the Johns Hopkins University.

Kurt E. Yeager

Kurt E. Yeager is the Executive Director of the Galvin Electricity Initiative, a non-profit organization focused on transforming U.S. electricity service. Mr. Yeager retired as President and CEO of the Electric Power Research Institute (EPRI) in September 2004. Mr. Yeager is a Fellow of ASME; has served on National Academy of Engineering Committees; is an Executive Counsel and Convening Lead Author for IIASA's "Global Energy Assessment" report for worldwide policy leaders; and serves on the Board of EnergyConnect. Mr. Yeager has authored over 200 publications on energy and environmental topics. In 2008 he co-authored "Perfect Power" (McGraw-Hill) with Bob Galvin.