



19th Annual Energy and Climate Change Research Seminar May 13 & 14, 2014

Speaker Biographies

John Bistline

**Project Manager, Energy and Environmental Analysis Group
Electric Power Research Institute**

John Bistline is a Project Manager at the Electric Power Research Institute (EPRI). His research analyzes the economic and environmental effects of policy and technological development to inform energy systems planning and company strategy. Dr. Bistline's current research activities examine renewable integration, climate risk management, electrification, and the impacts of federal and state climate policies.

Before joining EPRI, Dr. Bistline worked for the Energy Modeling Forum and the Steyer-Taylor Center for Energy Policy and Finance at Stanford University. His dissertation research focused on uncertainty analysis in the electric power sector and investigated questions related to capacity planning, R&D portfolio management, and fat-tailed uncertainty. Dr. Bistline received a BS in Mechanical Engineering and Engineering and Public Policy from Carnegie Mellon University. He holds a MS in Mechanical Engineering and a doctorate in Management Science and Engineering from Stanford University.

Thomas (Tom) E. Bottorff

**Senior Vice President, Regulatory Affairs
Pacific Gas and Electric Company**

Tom Bottorff is Senior Vice President, Regulatory Affairs, at Pacific Gas and Electric Company. Mr. Bottorff is responsible for developing, coordinating and managing policy with state and federal regulatory agencies, including the California Public Utilities Commission (CPUC), the California Energy Commission (CEC) and the Federal Energy Regulatory Commission (FERC). He also is responsible for developing and filing rate proposals with the CPUC, and for oversight of the company's gas and electric tariffs. Mr. Bottorff joined PG&E in 1982 and has served in a number of regulatory, rates and customer service areas prior to his current assignment.

Before joining the utility, Mr. Bottorff was a power supply analyst for the Nuclear Regulatory Commission in Washington, D.C. Mr. Bottorff received a Bachelor of Science degree in electrical engineering from the University of California, Berkeley, and a Master of Science degree in engineering economic systems from Stanford University. He holds both general building and engineering contractor licenses in the state of California. Mr. Bottorff also serves on the board of directors of the Silicon Valley Leadership Group and the Sonoma County Chapter of Habitat for Humanity.

Skiles Boyd

**Vice President of Environmental Affairs
DTE Energy**

Skiles Boyd is Vice President of Environmental Management and Resources at DTE Energy, a Detroit-based diversified energy company involved in the development and management of energy-related businesses and services nationwide. Mr. Boyd is responsible for managing the company's environmental issues and manages a department of over 70

people. In that role, he sets environmental policy, represents the company on environmental issues with the public and in environmental regulatory and legislative development, coordinates environmental studies, and conducts environmental audits. He has worked in DTE's environmental department for over 30 years.

Mr. Boyd earned a BS in environmental resource management from Pennsylvania State University and a MBA from Wayne State University. Mr. Boyd is active on the Research Advisory and Environmental Councils of the Electric Power Research Institute, the Conference Board's Chief Environmental Health and Safety Officers' Council (Vice Chair), the Air and Waste Management Association, the Business Environmental Leadership Council of the Center for Climate and Energy Solutions, the environmental committees of the Edison Electric Institute, and the American Coalition for Clean Coal Electricity. In addition to serving on CGLI's Board of Directors, Mr. Boyd serves on the Board of Directors for the Southeast Michigan Sustainable Business Forum.

Leon Clarke
Senior Scientist, Integrated Modeling and Energy Group
Joint Global Change Research Institute

Dr. Clarke is a Senior Scientist and leads the Integrated Modeling and Energy Group at the Joint Global Change Research Institute (JGCRI), a collaboration between the University of Maryland and the Pacific Northwest National Laboratory (PNNL). Dr. Clarke's current research focuses on the role of technology in addressing climate change, international climate policy, scenario analysis, the interactions between climate impacts and mitigation, and integrated assessment model development. He is currently a coordinating lead author in the Working Group III contribution to the IPCC's fifth assessment report and co-coordinator of Energy Modeling Study 24 on the technology and climate policy in the U.S.

Dr. Clarke coordinated the U.S. Climate Change Science Program's emissions scenario development process (SAP 2.1a), he coordinated and served as the co-editor for the Energy Modeling Forum 22 Transition Scenarios project, and he was a member of the National Academy Study on America's Climate Choices. He was a lead author on the IPCC's Special Report on Renewable Energy and a contributing author on the Working Group III contribution to the IPCC's Fourth Assessment Report and. Prior to joining PNNL, Dr. Clarke worked for Lawrence Livermore National Laboratory, Pacific Gas & Electric Company, and RCG/Hagler, Bailly, Inc. Dr. Clarke holds BS and MS degrees in Mechanical Engineering from U.C. Berkeley and MS and Ph.D. degrees in Engineering Economic Systems and Operations Research from Stanford University.

Francisco C. de la Chesnaye
Program Manager & Senior Economist, Energy and Environmental Analysis Group
Electric Power Research Institute

Francisco de la Chesnaye is a Program Manager in EPRI's Energy and Environmental Analysis Group with responsibilities over the Global Climate Policy Costs and Benefits Program and related US-REGEN analyses. The focus of his research is on conducting energy-economic analyses to assess the impact of technology development and energy policies on the electric power sector, the energy system, and the economy at both national and international scales. In addition to his work at EPRI, Dr. de la Chesnaye serves on various external expert panels. He was a Lead Author on the current U.S. Climate Assessment's Mitigation chapter. Dr. de la Chesnaye was a lead author in a recently completed National Academies of Sciences report to Congress that evaluated the "Effects of Provisions in the Internal Revenue Code on U.S. Greenhouse Gas Emissions." In 2010, Mr. de la Chesnaye served on a previous Academies Panel which completed a report to Congress titled "Limiting the Magnitude of Future Climate Change."

Prior to joining EPRI in 2008, Dr. de la Chesnaye was the Chief Climate Economist at the U.S. Environmental Protection Agency where he was responsible for developing and applying EPA's economic models for domestic and international climate change policy analysis. Dr. de la Chesnaye also was a Lead Author for the Intergovernmental Panel on Climate Change's Fourth Assessment Report and was a co-editor of Human-Induced Climate Change: An Interdisciplinary

Assessment published by Cambridge Univ. Press (2007). Mr. de la Chesnaye has a Ph.D. in Public Policy from the Univ. of Maryland. He also holds graduate degrees from Johns Hopkins and American University and a BS from Norwich Univ., The Military College of Vermont.

Adam Diamant
Technical Executive, Energy and Environmental Analysis Group
Electric Power Research Institute

Adam Diamant is a Technical Executive in the Energy and Environmental Analysis Group. In this role, Mr. Diamant manages EPRI Program 178B on "Fuels, Generation Planning and Corporate Risk" and provides analytic support to EPRI's ongoing work related to climate change policies. Mr. Diamant's current research focuses on a variety of issues, including the interaction of natural gas and coal fuel markets, and potential impacts on long-term generation planning and risk management for electric companies. Mr. Diamant's climate-related research focuses on the development of international greenhouse gas (GHG) emissions trading, the benefits and risk of incorporating GHG emissions offsets in evolving climate policies, and corporate GHG risk analysis and management. Mr. Diamant's research is designed to provide information and methods that can help electric companies and others to make strategic decisions in the face of changing fuel markets and climate policy uncertainty.

Prior to joining EPRI, Mr. Diamant worked in the Executive Office of the President of the United States, Office of Management and Budget (OMB), where he was responsible for oversight of the regulatory programs of the U.S. Department of the Interior and the U.S. Forest Service. Mr. Diamant holds a Master in Public Policy degree from Harvard University's John F. Kennedy School of Government, and a BA degree in political science from the University of California, Berkeley.

Brent W. Dorsey
Director, Corporate Environmental Programs
Entergy Corporation

Mr. Dorsey is a veteran of the utility industry with over 30 years of experience in a broad cross-section of duties. As Director of Corporate Environmental Programs for Entergy, he is responsible for the development and stewardship of top level corporate environmental policies and programs, related to climate change, governance, sustainability and regulatory policy. Entergy has been selected by the Dow Jones Sustainability Index for the past twelve years and named "Best-in-Class" by Carbon Disclosure Project for the past nine years. Mr. Dorsey represented Entergy as a member of the stakeholder panel on the Regional Greenhouse Gas Initiative (RGGI) in the Northeast U.S.

During his career, Mr. Dorsey's accomplishments include the acquisition of six merchant nuclear power plants, project development, power marketing and trading, and various planning roles. Mr. Dorsey received a B.S. in accounting from Louisiana State University, Baton Rouge, LA, and an M.B.A. from Lamar University, Beaumont, TX. Mr. Dorsey is a member of the Emissions Marketing Association, Beta Gamma Sigma (honorary business), and Sigma Iota Epsilon (honorary management).

Raymond L. Evans
Vice President, Environmental and Technologies
FirstEnergy Service Company

Raymond L. Evans is Vice President, Environmental and Technologies for FirstEnergy Service Company, a subsidiary of FirstEnergy Corp. Mr. Evans is responsible for developing environmental programs and strategies that comply with laws and regulations pertaining to all of the company's facilities, including management of brownfield sites. He also plays a key advisory role regarding the operation and maintenance of environmental systems throughout the company and is

responsible for evaluation, testing, and application of emerging technologies in the energy delivery and supply businesses.

A registered professional engineer in Ohio, Mr. Evans earned his Bachelor's degree in Civil Engineering from the University of Dayton. He also is a graduate of Clemson University's Master of Environmental Systems Engineering program. He is a member of the environmental committees of several key industry groups, including the Electric Power Research Institute, the Edison Electric Institute, the Utility Air Regulatory Group, and the Ohio Electric Utility Institute. He serves on the boards for the Ohio Trust for Public Land and the Electric Power Generation Association. Locally, he has participated in the Northeast Ohio Areawide Coordinating Agency's ambient air quality planning efforts.

Brian Flannery
Center Fellow
Resources for the Future

In semi-retirement Dr. Flannery collaborates with scientists at the Joint Global Change Research Institute and as a Center Fellow at Resources for the Future. He also continues to participate in the international climate and energy arena, serving as chair of the Business Engagement Task Force of the Major Economies Business Forum and of the Green Economies Dialogue project. He received degrees in astrophysics from Princeton and the University of California Santa Cruz, and pursued research at The Institute for Advanced Study and as professor at Harvard University. He is co-author of the widely used reference *Numerical Recipes: the Art of Scientific Computing*.

Dr. Flannery recently retired from Exxon Mobil Corporation as Science, Strategy and Programs Manager in Environmental Policy and Planning. Since joining Exxon in 1980, he has conducted research and organized international workshops and symposia dealing with scientific, technical, economic, and policy aspects of global climate change. At Exxon Dr. Flannery played a leadership role in the creation of the Joint Program on the Science and Policy of Global Change at MIT and the Global Climate and Energy Project at Stanford University.

Chris E. Forest
Associate Professor of Climate Dynamics
Pennsylvania State University

Dr. Forest joined the faculty in the Department of Meteorology at The Pennsylvania State University in 2008 after 12 years as a Research Scientist at MIT working in the Joint Program on the Science and Policy of Global Change. He served as a Lead Author on the Climate Change Science Program SAP1.1 Report examining the estimates of temperature trends in the atmospheric and surface climate data and contributed to the IPCC AR4 Working Group 1 Chapter 11. He is an IPCC AR5 Lead Author on Chapter 9, "Evaluation of Climate Models" in Working Group 1.

Dr. Forest graduated from the University of Wisconsin-Madison in 1990 with a BS in Applied Math, Engineering, and Physics and from the Massachusetts Institute of Technology in 1996 with a PhD in Meteorology (thesis advisors: Kerry A. Emanuel and Peter Molnar).

Mike Hachey
Vice President of Regulatory Affairs and Compliance
TransCanada Power Marketing

Mike Hachey is Vice President of Regulatory Affairs and Compliance for TransCanada Power Marketing in Westborough, Massachusetts. At TransCanada he has responsibilities for northeastern US and eastern Canadian regulatory and legislative affairs, property taxes, and compliance matters. Mr. Hachey joined TransCanada in 1998. Prior to joining TransCanada, Mr. Hachey worked for the New England Power Company where he served in various positions, including Vice President and Director of Generation Marketing. He has served on the NEPOOL Participants

Committee and Markets Committees, or their predecessor committees, since 1997 and 1994, respectively, and is a past member of the Board of Directors of the Northeast Energy and Commerce Association and is a past chairman of the Electric Power Research Institute's Fossil Plant Operations Committee.

He received a Master's degree in Electric Power Engineering from Rensselaer Polytechnic Institute, a BS in Electrical Engineering from Northeastern University, and completed the Public Utility Executive Program at the University of Michigan.

G. Vinson Hellwig
Division Chief of the Air Quality Division
Michigan Department of Environmental Quality

G. Vinson (Vince) Hellwig was appointed Division Chief of the Air Quality Division, Michigan Department of Environmental Quality (MDEQ), December 2002. Mr. Hellwig has extensive experience in all areas of air quality implementation and permitting. Mr. Hellwig is Past Co-President (representing states) of the National Association of Clean Air Agencies (NACAA) and serves on the Board of Directors of The Climate Registry and Lake Michigan Air Directors Consortium(LADCO). He is also a member of the EPA Clean Air Act Advisory Committee (CAAAC).

Prior to joining the MDEQ, Vince was with the United States Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards, in Research Triangle Park, North Carolina. Mr. Hellwig holds a BS from Shorter University and performed graduate studies at Clemson University and Auburn University.

Jeff Hopkins
Vice President for Policy and Analysis
Center for Climate and Energy Solutions

Jeff Hopkins is Vice President for Policy and Analysis at the Center for Climate and Energy Solutions, managing programs related to the energy, power, and transportation sectors. Dr. Hopkins has more than 15 years of private and public sector experience in economic and environmental policy analysis focused on the global energy sector and trends in best regulatory practice, especially in mining and agriculture. Prior to joining C2ES, Dr. Hopkins worked for seven years at Rio Tinto on energy and climate policies, leading their climate policy engagement in the United States and Canada and working with their globally-distributed community of practice.

Dr. Hopkins previously was acting chief economist for the House Budget Committee, where he oversaw the agriculture and natural resource budget functions during 2005 and 2006. He worked at the U.S. Department of Agriculture's Economic Research Service on a number of issues, including the impacts of farm policy on global competitiveness and environmental outcomes. Dr. Hopkins has a Ph.D. from Ohio State University in Agriculture, Environment and Development Economics and was a Peace Corps Volunteer in Guatemala from 1987-1989.

David Littell
Commissioner
Maine Public Utilities Commission

David Littell was appointed to the Maine Public Utilities Commission by Governor Baldacci and confirmed by the Maine Senate in August 2010. From 2005 to 2010, he served as Maine's Commissioner of Environmental Protection where he managed more than 400 scientists, financial and environmental specialists and engineers and approved a record investment in Maine's capital and energy infrastructure. Commissioner Littell was the second chairman of the Regional Greenhouse Gas Initiative ("RGGI"), was vice-chair twice and is currently the treasurer making him the longest-serving officer in RGGI. He chaired the New England Governors' Committee on the Environment and co-chaired of the New England Governors'/Eastern Canadian Premiers Committee on the Environment. He represents Maine on the Eastern

Interconnect States Planning Committee (“EISPC”) and chairs the EISPC Energy Zones. He serves a vice chair of the National Association of Regulatory Utility Commissioners (“NARUC”) Task Force on Environmental Regulation and Generation, is on the board of National Regulatory Research Institute (“NRRI”), chaired the Environmental Council of the States Cross-Media Committee and serves on The Climate Registry (“TCR”) Executive Board.

Commissioner Littell was a partner at Maine’s largest law firm until 2003 when he accepted appointment as the deputy commissioner at DEP. From 1994-2003, he was an intelligence officer in the U.S. Navy Reserves, resigning as Lieutenant Commander. Commissioner Littell received a J.D. from Harvard Law School cum laude in 1992 and an A.B. from Princeton magna cum laude and Phi Beta Kappa in 1989. He has authored numerous professional and academic articles including most recently, “Putting a Price on Carbon, How EPA can establish a U.S. GHG Program for the Electricity Sector”.

Adele Morris
Fellow and Policy Director for Climate and Energy Economics
The Brookings Institution

Adele Morris is a fellow and policy director for Climate and Energy Economics at the Brookings Institution. Her expertise and interests include the economics of policies related to climate change, energy, natural resources, and public finance. She joined Brookings in July 2008 from the Joint Economic Committee (JEC) of the U.S. Congress, where she spent a year as a Senior Economist covering energy and climate issues.

Before the JEC, Dr. Morris served nine years with the U.S. Treasury Department as its chief natural resource economist, working on climate, energy, agriculture, and radio spectrum issues. On assignment to the U.S. Department of State in 2000, she was the lead U.S. negotiator on land use and forestry issues in the international climate change treaty process. Prior to joining the Treasury, she served as the senior economist for environmental affairs at the President’s Council of Economic Advisers during the development of the Kyoto Protocol. She began her career at the Office of Management and Budget, where she conducted regulatory oversight of agriculture and natural resource agencies. She holds a Ph.D. in Economics from Princeton University, an M.S. in Mathematics from the University of Utah, and a B.A. from Rice University.

Chris Namovicz
Team Leader for Renewable Electricity Analysis
U.S. Energy Information Administration

Chris Namovicz is the Team Leader for Renewable Electricity Analysis at the U.S. Energy Information Administration. Mr. Namovicz is responsible for analysis and forecasting of renewable resources and generation, including occasional reports to Congress analyzing the impact of policies with significant potential to affect renewable energy markets such as a national renewable portfolio standard, energy tax policy, and carbon regulation.

Prior to joining EIA in 2001, Mr. Namovicz worked as an energy and environmental consultant. He holds an MS in Environmental Science from Johns Hopkins University and B.S. in Engineering and Public Policy from Washington University in St. Louis.

Victor Niemeyer
Technical Executive
Electric Power Research Institute

Victor Niemeyer is the Program Manager for the Greenhouse Gas Reduction Options Program at the Electric Power Research Institute (EPRI). The Program helps energy companies investigate market mechanisms and offsets in climate policy design, assess the market impacts of climate policy on business and compliance strategies, understand the

benefits and risks of new technologies, and assess the impacts climate policy at state and regional levels. The overall goal of this work is to help electric manage the costs and risks to customers and investors in a carbon-constrained environment. Previously, Dr. Niemeyer managed the Power Markets and Risk program area in EPRI's Power Delivery and Markets (PDM) Sector where he worked on methods of forecasting electric power price, estimating power and fuel market volatilities for option valuation, value generating and other assets, and managing financial risks from market volatility for competitive energy companies. He was also responsible for managing PDM's grid reliability and security programs.

Dr. Niemeyer holds a BA in economics from the University of California and a doctorate in economics from the University of Texas at Austin. His fields of emphasis are energy economics, power market simulation, and environmental economics.

Michael R. Peevey
President
California Public Utilities Commission

Michael R. Peevey was appointed President of the California Public Utilities Commission (CPUC) by Governor Gray Davis on December 31, 2002, having been originally appointed to the CPUC by Governor Davis in March 2002. In December 2008 Governor Arnold Schwarzenegger reappointed Mr. Peevey to the CPUC for another six-year term. As President of the CPUC, Mr. Peevey is committed to protecting the public interest by promoting consumer needs, while challenging utilities to embrace new technologies and provide safe, high-quality services. He also serves as Chairman of the California Clean Energy Fund, an independent nonprofit corporation working to advance clean energy using tools from finance, public policy, and technological innovation; and also serves as Chairman of the California Emerging Technology Fund, which provides leadership statewide to close the "Digital Divide".

From 1995 until 2000, Mr. Peevey was President of NewEnergy Inc. Prior to that, Mr. Peevey was President of Edison International and Southern California Edison Company, and a senior executive there beginning in 1984. Mr. Peevey has served on the boards of numerous corporations and non-profit organizations. Mr. Peevey has received many awards recognizing his leadership in developing energy policy and promoting recognition of California's diverse population, including a "Distinguished Citizen Award" from the Commonwealth Club of California for achievements in green and sustainable energy in 2007; the Pat Brown Legacy Award in 2003; named "Man of the Year" by the Power Association of Northern California; recognized with the Climate Action Champion Award by the California Climate Action Registry in 2004; and leadership recognition from American Council for Energy Efficiency (2005), the Utility Minority Access Program (2006), and the California Solar Energy Industries Association (2006). Mr. Peevey holds Bachelor and Master of Arts degrees in economics from the University of California, Berkeley.

Revis James
Director, Generation R&D Sector
Electric Power Research Institute

Revis James is a Director in EPRI's Generation R&D Sector, responsible for a staff of 35 researchers and an overall budget of \$35M. He is responsible for research programs related to combustion turbines/combined cycles, advanced coal generation, CO₂ capture and storage, water management in power plants, and large scale technology demonstrations. He also leads a strategic initiative addressing R&D needs arising from large scale transformation in the electric power generation fleet.

James was previously Director of EPRI's Energy Technology Assessment Center, focusing on the impact of policy and economic trends on technology research and development priorities for the electric power industry. His research activities have included analysis of potential CO₂ emissions reductions from the U.S. electricity sector, and assessment of the costs of electricity production. He has been a lead author on several key EPRI public domain reports and

analyses. James received Bachelor of Science degrees in nuclear engineering, electrical engineering and computer sciences, and a Masters degree in nuclear engineering from the University of California, Berkeley.

Steven Rose
Senior Research Economist
Electric Power Research Institute

Dr. Rose is a member of the Energy and Environmental Analysis Research Group at EPRI. His research focuses on long-run modeling of energy systems and climate change drivers, mitigation, and potential risks, as well as the economics of land-use, agriculture and forestry abatement, and bioenergy as they relate to domestic and international climate change and energy policy. Dr. Rose's Current research interests and areas of publication include energy-water-land linkages, climate change risks and responses, the role of bioenergy in long-run climate management, mitigation institutions, offset mitigation investment risks and incentives, bioelectricity emissions, the economics of REDD+ and agricultural productivity, trade-offs between mitigation and temperature, and the marginal costs of climate change.

Dr. Rose was a lead author for the IPCC's Fifth and Fourth Assessment Reports, and the U.S. National Climate Assessment, as well as for the IPCC's report on the development of new climate scenarios. In addition, Dr. Rose co-chairs the bioenergy modeling subgroup of Stanford University's Energy Modeling Forum (EMF), serves on the federal government's U.S. Carbon Cycle Science Program Carbon Cycle Scientific Steering Group, and sat on EPA's Science Advisory Board panel on Carbon Dioxide Emissions from Biogenic Sources. Dr. Rose received his BA degree in economics from the University of Wisconsin-Madison and his doctorate in economics from Cornell University.

Joel B. Smith
Principal
Stratus Consulting

Joel B. Smith, a Principal with Stratus Consulting, has been analyzing climate change impacts and adaptation issues for over 25 years. He has been a coordinating lead author or lead author on the on Third, Fourth and Fifth Assessment Reports of the Intergovernmental Panel on Climate Change. Mr. Smith was a member of the U.S. National Climate Change Assessment Federal Advisory Committee and the National Academy of Sciences "Panel on Adapting to the Impacts of Climate Change." He has provided technical advice, guidance, and training on assessing climate change impacts and adaptation to people around the world and to international organizations, the U.S. government, states, municipalities, and the non-profit and private sectors.

Mr. Smith worked for the U.S. EPA from 1984 to 1992, where he was the deputy director of Climate Change Division. He joined Hagler Bailly in 1992 and Stratus Consulting in 1998. He was a coeditor of *The Potential Effects of Global Climate Change on the United States* (1989), *As Climate Changes: International Impacts and Implications* (1995), *Adaptation to Climate Change: Assessments and Issues* (1996), *Climate Change, Adaptive Capacity, and Development* (2003), and *The Impact of Climate Change on Regional Systems: A Comprehensive Analysis of California* (2006). He has published more than forty articles and chapters on climate change impacts and adaptation in peer-reviewed journals and books and has edited a number of books on climate change. Mr. Smith received a BA from Williams College in 1979, and a Masters in Public Policy from the University of Michigan in 1982.