



**Quadrennial Energy Review
Second Installment
Electricity: Generation to End-Use
Stakeholder Meeting #2: Boston, MA
April 15, 2016
Salons D, E, F, and L
Boston Marriott Long Wharf, 296 State Street**

Host and Panelist Bios



Dr. Ernest Moniz, United States Secretary of Energy

As United States Secretary of Energy, Dr. Ernest Moniz is tasked with implementing critical Department of Energy missions in support of President Obama's goals of growing the economy, enhancing security and protecting the environment. This encompasses advancing the President's all-of-the-above energy strategy, maintaining the nuclear deterrent and reducing the nuclear danger, promoting American leadership in science and clean energy technology innovation, cleaning up the legacy of the cold war, and strengthening management and performance.

Prior to his appointment, Dr. Moniz was the Cecil and Ida Green Professor of Physics and Engineering Systems at the Massachusetts Institute of Technology (MIT), where he was a faculty member since 1973. At MIT, he headed the Department of Physics and the Bates Linear Accelerator Center. Most recently, Dr. Moniz served as the founding Director of the MIT Energy Initiative and as Director of the MIT Laboratory for Energy and the Environment where he was a leader of multidisciplinary technology and policy studies on the future of nuclear power, coal, nuclear fuel cycles, natural gas and solar energy in a low-carbon world.

From 1997 until January 2001, Dr. Moniz served as Under Secretary of the Department of Energy. He was responsible for overseeing the Department's science and energy programs, leading a comprehensive review of nuclear weapons stockpile stewardship, and serving as the Secretary's special negotiator for the disposition of Russian nuclear materials. From 1995 to 1997, he served as Associate Director for Science in the Office of Science and Technology Policy in the Executive Office of the President.

In addition to his work at MIT, the White House and the Department of Energy, Dr. Moniz has served on a number of boards of directors and commissions involving science, energy and security. These include President Obama's Council of Advisors on Science and Technology, the Department of Defense Threat Reduction Advisory Committee, and the Blue Ribbon Commission on America's Nuclear Future.

A member of the Council on Foreign Relations, Dr. Moniz is a Fellow of the American Association for the Advancement of Science, the American Academy of Arts and Sciences, the Humboldt Foundation, and the American Physical Society.

Dr. Moniz received a Bachelor of Science degree summa cum laude in Physics from Boston College, a Doctorate in Theoretical Physics from Stanford University, and honorary degrees from the University of Athens, the University of Erlangen-Nuremberg, Michigan State University, and Universidad Pontificia de Comillas.



Dr. John P. Holdren, Assistant to the President for Science and Technology, Director of the White House Office of Science and Technology, and Co-Chair of the President's Council on Advisors on Science and Technology (PCAST).

Prior to joining the Obama administration Dr. Holdren was Teresa and John Heinz Professor of Environmental Policy and Director of the Program on Science, Technology, and Public Policy at Harvard University's Kennedy School of Government, as well as professor in Harvard's Department of Earth and Planetary Sciences and Director of the independent, nonprofit Woods Hole Research Center. Previously he was on the faculty of the University of California, Berkeley, where he co-founded in 1973 and co-led until 1996 the interdisciplinary graduate-degree program in energy and resources. During the Clinton administration Dr. Holdren served as a member of PCAST through both terms and in that capacity chaired studies requested by President Clinton on preventing theft of nuclear materials, disposition of surplus weapon plutonium, the prospects of fusion energy, U.S. energy R&D strategy, and international cooperation on energy-technology innovation.

Dr. Holdren holds advanced degrees in aerospace engineering and theoretical plasma physics from MIT and Stanford. He is a member of the National Academy of Sciences, the National Academy of Engineering, and the American Academy of Arts and Sciences, as well as a foreign member of the Royal Society of London and former president of the American Association for the Advancement of Science. He served as a member of the MacArthur Foundation's Board of Trustees from 1991 to 2005, as Chair of the National Academy of Sciences Committee on International Security and Arms Control from 1994 to 2005, and as Co-Chair of the independent, bipartisan National Commission on Energy Policy from 2002 to 2009. His awards include a MacArthur Foundation Prize Fellowship, the John Heinz Prize in Public Policy, the Tyler Prize for Environmental Achievement, and the Volvo Environment Prize. In December 1995 he gave the acceptance lecture for the Nobel Peace Prize on behalf of the Pugwash Conferences on Science and World Affairs, an international organization of scientists and public figures in which he held leadership positions from 1982 to 1997.



The Honorable Charlie Baker, Governor of the Commonwealth of Massachusetts

Since taking office in January 2015, Governor Charlie Baker has been making Massachusetts a great place to live, work, start a business and raise a family – while delivering a customer-service oriented state government that is as thrifty, creative and hard working as the people of Massachusetts. Governor Baker called on an expert, bipartisan team of Republicans, Democrats, and Independents to lead his cabinet. Together, they are fulfilling his commitment to building stronger and safer communities for our children and families; keeping our roads and bridges safe and reliable; protecting our natural resources; and ensuring our schools and students are successful and safe.

From resolve in the face of unprecedented snow and freezing temperatures, to working to fix the MBTA, the Department of Children and Families, the Health Connector and Registry of Motor Vehicles, to balancing budgets despite billions in deficits all without raising taxes - the Baker-Polito Administration is making state government truly work for the people of Massachusetts.

Governor Baker and Lt. Governor Polito have also set their sights on addressing some of the Commonwealth's greatest long-term challenges:

- Reducing family energy costs and improving the reliability of our energy grid through groundbreaking hydro and solar power legislation;

- Lifting the charter school cap to ensure every child in the Commonwealth has access to high-quality education regardless of their zip code;
- Securing a 50% increase in the Earned Income Tax Credit (EITC) - putting money back in the pockets of over 400,000 working families and individuals throughout the Commonwealth;
- And landmark legislation aimed at curbing the opioid epidemic's grip on our Commonwealth's families.

Panel 1: Bulk Power Generation and Transmission: How Can We Plan, Build, and Operate the Appropriate Amount for Future Needs?



Stephen J. Rourke, Vice President, System Planning, ISO New England

Stephen J. Rourke is the Vice President for System Planning for ISO New England, having previously served as the company's Director, Reliability & Operations Services. A former manager of the REMVEC control center in Westborough, MA, and former manager of marketing operations for Northeast Utilities/Select Energy Inc., Mr. Rourke has 30 years of experience in operations and planning of New England's bulk power system. Mr. Rourke is responsible for overseeing the Regional System Plan, analyzing new infrastructure projects, implementing the generator interconnection process, developing findings for allocating transmission costs, and supporting New England's capacity markets. He is a Senior Member of the Institute of Electrical and Electronic Engineers.

Mr. Rourke has a B.S. in Electrical Engineering from Worcester Polytechnic Institute and an M.B.A. from Western New England University.



Richard Dewey, Executive Vice President, New York Independent System Operator

Rich Dewey is Executive Vice President of the New York Independent System Operator (NYISO). He is responsible for the oversight of Operations, Markets and Information Technology.

Mr. Dewey was promoted to Executive Vice President in February 2015, having served as Senior VP & CIO since April 2010, and VP & CIO since 2008. He has also served as the NYISO's Director of Product & Project Management, Manager of IT Strategic Software Development and Manager of IT Quality Assurance.

In his role as Executive Vice President he is responsible for overseeing the Operations group, which monitors the New York Control Area. As leader of the Markets Group, he also facilitates the competitive wholesale electricity markets. In addition he maintains oversight of the Information Technology Group, which is responsible for delivering IT products and services that evolve market and grid operations.

Before joining the NYISO in 2000, Mr. Dewey worked as an IT manager for Husky Injection Molding Systems in Pittsfield, Massachusetts and as a manager of corporate network services for the Niagara Mohawk Power Corporation in Syracuse, New York.

He earned a Master of Science degree in Computer Engineering from Syracuse University and a Bachelor of Science degree in Electrical and Computer Engineering from Clarkson University in Potsdam, New York.



Gil Quiniones, President and Chief Executive Officer, New York Power Authority

Gil C. Quiniones has served as President and Chief Executive Officer of the New York Power Authority (NYPA), the nation's largest state-owned electric utility, since 2011. He is responsible for developing and implementing the statewide utility's strategic vision and mission and for supervising its operations, legal and financial matters and relationships with external stakeholders.

Mr. Quiniones was Co-Chairman of the New York Energy Highway Task Force, which helped carry out Governor Andrew M. Cuomo's vision for reimagining New York State's energy system through partnerships between the public and private sectors. Under his leadership, NYPA is currently playing a key role in the Governor's Reforming the Energy Vision initiative to use market forces and new technology to empower customers and encourage the growth of clean renewable energy and energy efficiency.

Before joining NYPA in 2007 as Executive Vice President of Energy Marketing and Corporate Affairs, Mr. Quiniones served in several positions in the administration of New York City Mayor Michael R. Bloomberg, including more than four years as Senior Vice President of Energy and Telecommunications. He previously worked for Con Edison for 16 years and was one of four co-founders of Con Edison Solutions, the utility's unregulated energy services company.

Mr. Quiniones is Chairman of the Board of Directors of the Electric Power Research Institute, the electric power industry's international research and development organization. He is Vice Chairman of the Board of Directors of the New York State Energy Research and Development Authority, serves on the boards of the Large Public Power Council and the Alliance to Save Energy, and is NYPA's principal representative to the American Public Power Association.



Carolyn Browne Anderson, Director - Transmission Policy and Insurance, Green Mountain Power

Carolyn Browne Anderson is the Director, Transmission Policy & Insurance for Green Mountain Power (GMP), a utility serving approximately 265,000 residential and business customers in Vermont. GMP is focused on a new way of doing business to meet the needs of customers with integrated energy services that help people use less energy and save money, while continuing to generate clean, cost-effective and reliable power. GMP is the first utility in the world to get a B Corp certification, meeting rigorous social, environmental, accountability and transparency standards and committing to use business as a force for good. In 2014, Vote Solar named GMP a Solar Champion.

Ms. Anderson has worked in the electric utility industry since 2004, when she joined Central Vermont Public Service Corporation as a member of that company's legal team and was Central Vermont's Senior Corporate Counsel at the time of the merger with GMP. In various roles for both utilities, Ms. Anderson has served as lead counsel before state and federal regulatory agencies, and developed and implemented compliance programs including the Federal Energy Regulatory Commission (FERC) Standards of Conduct and related programs overseen by NEPOOL and ISO New England. Ms. Anderson led her company's demand response programs, and oversaw all legal aspects of a \$65 million Smart Grid Project that, with an associated U.S. Department of Energy grant, transformed the company's business.

A native of Albany, NY, Ms. Anderson earned her Bachelor's degree from Siena College, and her law degree from Albany Law School of Union University. Upon graduation from law school, she was a law clerk for the New York State Supreme Court, Appellate Division. Prior to joining Central Vermont, Ms. Anderson had been a partner and of counsel in private practice with the Rutland, VT firm now known as Kenlan, Schwiebert, Facey & Goss, P.C.



Dan Dolan, President, New England Power Generators Association (NEPGA)

Dan Dolan has served as President of NEPGA since the fall of 2011. As President he oversees all activities conducted by the largest trade association representing competitive electric generating companies in New England. NEPGA's member companies represent approximately 26,000 megawatts (MW) of generating capacity in the region. NEPGA's mission is to promote sound energy policies which will further economic development, jobs, and balanced environmental policy. NEPGA believes that sustainable competitive markets are the best means to provide long-term reliable and affordable supplies of electricity for consumers.

Mr. Dolan had spent the previous eight years at the Electric Power Supply Association (EPSA), the national trade association representing competitive power suppliers, including generators and marketers. He departed as Vice President of Policy Research & Communications where he was responsible for coordinating research, reports, studies and analysis as well as directing state regulatory and legislative initiatives. Dolan also oversaw the development of energy trading policy including spearheading EPSA's activities in the development and implementation of the Dodd-Frank Wall St. Reform Act.

Mr. Dolan holds a Bachelor's degree in Business Management with a concentration in International Business from Goucher College. Mr. Dolan is also past Chairman of My Sister's Place, the oldest shelter and advocacy group for victims of domestic violence and their children in Washington, DC. Born and raised in Massachusetts, he lives there now with his wife and two daughters.



Camilo Serna, Vice President of Strategic Planning & Policy, Eversource Energy

As Vice President of Strategic Planning & Policy at Eversource Energy, Camilo Serna leads efforts to understand market, technology, customer and policy trends to identify long-term strategic opportunities for Eversource. Once identified, he further develops and implements several of these opportunities. Mr. Serna also leads efforts to develop key energy policy positions for the Company.

Mr. Serna is a frequent speaker at national and regional events. He is member of Greentech Media's Grid Edge Executive Council, MIT's Utility of the Future Study, and Executive Member of Eversource's Energy Center at UCONN.

Prior to joining Eversource in 2008, Mr. Serna worked for nine years with Oliver Wyman's Energy & Utilities practice helping leading utility and energy companies in Europe, Latin America, and North America with a wide array of strategic and operational challenges.

Mr. Serna holds an industrial engineering degree from Universidad de Los Andes (Bogotá, Colombia), and an MBA from Kellogg School of Management at Northwestern University.

Panel 2: Electricity Distribution and End-Use: How Do We Manage Challenges and Opportunities?



Ed White, Vice President, New Energy Solutions, National Grid

Edward White is Vice President of New Energy Solutions at National Grid. With great agility, decisiveness, creativity, and collaboration, Mr. White and his growing team have taken the leadership role in applying a dedicated focus to building the utility of the future. He is doing this in support of National Grid's Connect21 strategy through the ongoing development of new efficient products and services to meet the needs that our customers, stakeholders and communities both demand and deserve. These products and services include innovative customer pricing models, modernized smart grid programs, micro-grids, distributed service platforms, battery storage and a robust clean transportation strategy all focused on using energy in a more efficient and strategic manor. Prior to his current role, Mr. White successfully led a team that developed the company's largest distributed solar installation project and was also the U.S. lead on developing National Grid's Energy Management Strategy. Mr. White has been with National Grid for more than 20 years working with a number of teams, including Electric Operations, Environmental and Procurement, and also served as Chief of Staff to the President and Chief Executive Officer of the U.S. Business.

Mr. White earned his Bachelor of Science in Civil Engineering and a certificate in High Performance Management from Northeastern University in Boston. He also completed Cambridge University's Program for Sustainability Leadership.

National Grid is an electricity and gas company that connects consumers to energy sources through its networks. The company is at the heart of one of the greatest challenges facing our society - to create new, sustainable energy solutions for the future and developing an energy system that underpins economic prosperity in the 21st century. National Grid holds a vital position at the center of a complex energy system and embraces its role in being the ultimate integrator of a new distributed energy world. In the northeast US, we connect more than seven million gas and electric customers to vital energy sources, essential for our modern lifestyles. National Grid delivers electricity to approximately 3.3 million customers in Massachusetts, New York and Rhode Island. It is the largest distributor of natural gas in northeastern U.S., serving approximately 3.4 million customers in New York, Massachusetts and Rhode Island.



Karen Lefkowitz, Vice President, Business Transformation, Pepco Holdings

An industry veteran with over 30 years of experience, Ms. Lefkowitz is responsible for leading PHI's innovative initiatives to implement business processes and advanced technologies designed to help customers better manage their energy use and costs, improve reliability and customer service and support environmentally friendly programs. She is responsible for the mass deployment of advanced metering infrastructure smart meters and enabling the smart grid throughout the PHI service territory.

Ms. Lefkowitz currently serves on the board of directors of the Woolly Mammoth Theatre in Washington, D.C., and also served as the executive sponsor for the PHI United Way Campaign.

Ms. Lefkowitz received a bachelor's degree in business administration from The George Washington University, and an MBA from Marymount University.



Dena Lee DeLucca, Vice President of Corporate & Member Services and Chief Financial Officer of New Hampshire Electric Co-op (NHEC)

Dena Lee DeLucca is the Vice President of Corporate & Member Services and Chief Financial Officer for the NH Electric Cooperative (NHEC). NHEC is a member-owned electric distribution cooperative serving 83,000 homes and businesses in 115 New Hampshire communities. Ms. DeLucca oversees the operations and strategic direction of multiple business units. She provides strategic leadership of the financial and accounting performance of the company, as well as safety, facilities, information technology, information security, metering, member and media relations as well as overall strategic marketing functions.

Ms. DeLucca has more than 25 years' experience in nonprofit board governance/leadership, business operations and government/regulatory relations. Before joining the Cooperative she worked for the State of New Hampshire, in positions with the Governor's Office of Emergency Management and the Governor's Office of Energy. While at Emergency Management, she was involved in emergency preparedness for two nuclear power plants and developing messages for the Emergency Broadcast System. During her time with the Energy Office she developed and administered programs for energy efficiency including loan programs and replacement of leaking underground storage tanks.

Ms. DeLucca has played an integral role in building NHEC's financial strength from post-bankruptcy negative equity to a very healthy 45% with an A+ Credit Rating and revenues of \$130 million. She was the Senior Lead for NHEC's \$35 million Automated Metering and Communications Infrastructure project which received a DOE Smart Grid Investment Grant of \$15.9 million.

Currently, Ms. DeLucca is the President of the Northeast Association of Electric Cooperatives (NEAEC) with members in Maine, New Hampshire, New York and Vermont and a member of the Rural Electric Statewide Managers Association (RESMA). She has also served as a principal member of the SEE Action Utility Motivation & Energy Efficiency Working Group.

Ms. DeLucca is a frequent presenter at industry conferences, covering such topics as: Smart Grid (lessons learned, building a comprehensive customer engagement program, investment decisions, etc.); Linking Budget to Strategic Goals, Energy Efficiency (Smart Start); Communicating Financial Information Effectively, Superior Member Service; What a CFO Looks for in an Audit Engagement; and How to Work with the Media. She also taught Courses on Advertising and Management at Southern New Hampshire University.

Ms. DeLucca has a Master of Business Administration degree from Southern New Hampshire University, and a Bachelor of Science in Business from Franklin Pierce College. She is a Certified Energy Auditor, Cooperative Credentialed Director, a Leadership NH graduate and received Certificates from USDA in RUS Accounting and NRECA in Board Leadership. She recently received the 2016 Outstanding Women in Business Award from New Hampshire Business Review.



Roxanne Brown, Assistant Legislative Director, United Steelworkers (USW)

Roxanne Brown is the Assistant Legislative Director of the United Steelworkers (USW) and serves as one of four lobbyists in the USW's Legislative Office in Washington, D.C.

Since 1999, she has had the privilege of working for the 850,000 women and men who comprise the USW in the United States and Canada.

Ms. Brown focuses on a wide range of policy and regulatory issues including defense, environment and energy. She also covers policy issues pertaining to the domestic pulp and paper, nuclear, shipbuilding, aluminum, cement and specialty metals industries.

Ms. Brown serves on the Steering Committee of the Blue-Green Alliance, which is a national partnership of labor unions and environmental organizations dedicated to expanding the number and quality of jobs in the clean energy economy.

A native of Kingston, Jamaica, Ms. Brown was raised in White Plains, New York. She and her husband Dwight live in Maryland.



Micah Remley, Senior Vice President, Product, EnerNOC

As EnerNOC’s Senior Vice President of Product, Micah Remley is responsible for guiding the development of EnerNOC’s award-winning energy intelligence software. An early employee of EnerNOC, Mr. Remley has been an integral part of EnerNOC’s success for almost a decade. In previous leadership roles in operations and implementation, he helped to scale EnerNOC’s demand response and energy efficiency solutions to tens of thousands of customer sites representing almost 10 gigawatts of technology-enabled demand response capacity in markets around the world.

In his current role, Mr. Remley is again transforming how commercial and industrial facilities manage energy by driving innovation within EnerNOC’s energy intelligence SaaS solution. With almost 50 technology innovations in its patent pipeline, EnerNOC is developing its energy intelligence software as a next generation solution that helps commercial, industrial, and utility customers gain new insights, be more productive, and control costs in a rapidly changing energy landscape.

As an avid endurance sports participant, Mr. Remley has completed an Ironman triathlon, numerous marathons, and a thru-hike of the entire Appalachian Trail.

Mr. Remley holds a BS in Ecology with highest honors from the University of Maine and an MBA from the Yale School of Management.

Panel 3: Ensuring Resource Adequacy



David Cavanaugh, Director, Regulatory & Market Affairs, ISO-NE, NRG Energy, Inc.

David Cavanaugh is Director Regulatory & Market Affairs, in New England, for NRG Energy Inc. He is responsible for managing NRG’s interests in the ISO New England and NEPOOL stakeholder process. In his role, Mr. Cavanaugh also provides inward facing support to NRG’s Legal, Development, Asset Management and Commercial Operations business units in pursuit of NRG’s objectives in New England.

Over his 30 plus years in the energy industry Mr. Cavanaugh has held positions in Investor Owned Utilities, ISO/RTO organizations, and Public Power. Before joining NRG Energy Inc., he served as the first Manager of Regulatory Affairs for Energy New England LCC, an energy cooperative managing energy procurement and power market services for municipal power systems across New England. Prior to Energy New England LLC, Mr.

Cavanaugh spent 13 years at ISO New England Inc. in various leadership roles in the Markets Operations division including Director of Market Services. In this role, Mr. Cavanaugh had direct control and responsibility for market facing business operations such as customer support, market asset registration, auditing and performance monitoring. Mr. Cavanaugh also spent 15 years at Northeast Utilities (now Eversource), where he held numerous positions ranging in scope from generating plant operations, corporate support staff, and conservation and load management where he managed NU's Demand Response and Energy Efficient participation in the ISO New England Forward Capacity Market.



Edward D. Tatum, Jr., Vice President of Transmission, American Municipal Power, Inc.

Edward D. Tatum, Jr. joined AMP in 2015 as Vice President of Transmission. He previously served as Vice President of RTO and Regulatory Affairs for Old Dominion Electric Cooperative in Virginia, and held positions with Oglethorpe Power Cooperative in Georgia and the Rural Electrification Administration in Washington, D.C.

With over 35 years working in the energy industry with public power, Mr. Tatum has developed an extensive background in system planning (transmission, generation and distribution), forecasting, environmental licensing and compliance and competitive power supply. He has over 25 years of experience in developing utility industry federal policy, including open access transmission, competitive markets (generation interconnection, energy markets, resource adequacy constructs, RTO governance), transmission planning and demand response.

For over 15 years Mr. Tatum has been an active participant in PJM stakeholder process. He has served as a sector representative on the Finance, Nominating and Liaison Committees, as the Vice-Chair then Chair of the Reliability Assurance Agreement Reliability Committee, the Vice-Chair, then Chair of the Members Committee and the Chair of the Liaison Committee. He also served on the MAAC Board.

Mr. Tatum holds a Bachelor's degree in electrical engineering from the University of Virginia and a Master of Business Administration from the University of Richmond.



Craig Glazer, Vice President – Federal Government Policy, PJM

Craig Glazer coordinates all of PJM's regulatory and legislative policies before Congress, the Federal Energy Regulatory Commission, the United States Department of Energy and other federal agencies.

He currently serves on the board of directors of the Northeast Midwest Institute, a bipartisan research arm of the Northeast and Midwest region's congressional delegations. Prior to coming to PJM, Mr. Glazer served as commissioner and chairman of the Public Utilities Commission of Ohio. Mr. Glazer oversaw Ohio's move toward deregulation of its telephone, natural gas, transportation, and electric industries. He also chaired the state's Siting Board and served as a member of the governor's cabinet.

Mr. Glazer frequently testified before Congress and the Federal Energy Regulatory Commission on development of regional transmission organizations and the needs of the marketplace.



William Berg, Vice President Wholesale Market Development, Exelon Corporation

Mr. Berg currently serves as Vice President of Wholesale Market Development for Exelon Corporation. In that capacity, Berg manages Exelon's wholesale policy development and advocacy in all competitive wholesale electricity markets in which Exelon is engaged (PJM, ISO New England, Electric Reliability Council of Texas, Southwest Power Pool, Midcontinent Independent System Operator, and New York Independent System Operator) to ensure outcomes that are aligned with Exelon's business strategy. Mr. Berg works closely with the various business units within Exelon to understand the business needs of the Corporation.

Mr. Berg has worked in the electric power industry for 23 years, and in that time developed an understanding of market dynamics in regulated and deregulated energy markets. Mr. Berg holds a Bachelor of Arts in Business Administration with a Minor in Economics from Lenoir-Rhyne University and a Master of Arts in Applied Economics from the University of Central Florida, College of Business.