

Speaker Bios for the 2.22.17 Roundtable in the PJM Footprint



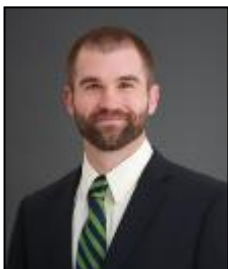
Dr. J. Arnold Quinn (Arnie) is Director of the Office of Energy Policy and Innovation at the Federal Energy Regulatory Commission. Prior to heading the Office of Energy Policy and Innovation, Arnie held several other positions at the Commission, including Director of the Division of Economic and Technical Analysis, Office of Energy Policy and Innovation and Director of the Division of Energy Market Oversight, Office of Enforcement. Before joining FERC in 2003, he was employed in private industry, working for The Brattle Group and Christensen Associates.

Arnie earned a Bachelor of Science in Economics from the University of Wisconsin and a Ph. D. in Economics from the University of Minnesota.



Commissioner Carla J. Peterman was appointed to the California Public Utilities Commission (CPUC) by Governor Jerry Brown in December 2012. Commissioner Peterman is the CPUC's assigned Commissioner for several proceedings, including energy efficiency, the Renewables Portfolio Standard, alternative transportation, energy storage, and several general rate cases. She serves as Board member of NARUC and as a Steering Committee member of the California Plug-in Electric Vehicle Collaborative.

In 2011, Carla was appointed by Governor Brown to the California Energy Commission, where she was lead Commissioner for renewables, transportation, natural gas, and the 2012 Integrated Energy Policy Report. Carla holds a Ph.D. in Energy and Resources from UC Berkeley. She also earned an MS and an MBA degree from Oxford University, where she was a Rhodes Scholar, and a BA in History from Howard University.



Adam J. Keech is Executive Director - Market Operations at PJM Interconnection. He has worked at PJM for over 13 years in both Market Operations and System Operations. Adam is currently responsible for the efficient design and operation of PJM's electricity markets, including the Day-ahead and Real-time Energy and Ancillary Service Markets, Financial Transmission Rights auctions and the capacity market.

Adam graduated from Rutgers University with a bachelor's degree in Electrical Engineering. He earned a master's degree in Applied Statistics from West Chester University.



Bud Collins, CEO of NEC Energy Solutions brings to his role more than 30 years of leadership and expertise in power, energy and management solutions. Bud joined the company, then part of A123 Systems, in 2007. He served as the Vice President of Engineering with responsibility for A123's system development across the corporation. In 2013, he became President of A123 Energy Solutions, with responsibility for A123's Grid & Commercial business.

Previously, Bud served as the Director of Engineering for APC-MGE, a leading provider of global, end-to-end AC and DC-based back-up power products and services. Prior to working at APC-MGE, he served as Vice President of Engineering for Tripp Lite Inc. a global leader in Power Protection products. He has held senior product development positions with Data General Corp, General Dynamics, Alpha Microsystems, Minuteman and Hugin-Sweda. Bud was educated at Northeastern University, where he received a Bachelor of Science degree in Mechanical Engineering.



Kelly Warner has 30 years of experience in the energy services, electric and gas utility industry, with 15 of those years as chief executive of major energy consulting and service firms. In his roles as CEO of Deerpath Energy, Inc., XENERGY and KEMA Inc., he led or participated in numerous policy, strategy, and business development initiatives that span the value chain of the energy industry. Kelly started his career in solar, and over time became a national expert in the field of energy efficiency and

demand-side management. Kelly is a recognized expert in utility industry restructuring and was responsible for the development of one of the first retail energy service companies in the U.S. Kelly has a BA from Williams College and an M.S. from Stanford.



Phil Giudice is President and CEO of Ambri, Inc. in Cambridge MA. Ambri is working to commercialize grid scale Liquid Metal Batteries which were developed at MIT with support from ARPAe.

Previously, Phil served as Undersecretary of Energy and as Commissioner of the Department of Energy Resources for Massachusetts. Phil served as NASEO board chair as well as on the US Department of Energy's State Energy Advisory Board, Energy Efficiency and Renewables Advisory Committee and State Energy Efficiency Action Network. Prior to his service at MA DOER, Phil was senior vice president and a board member at EnerNOC and before that, a senior partner in Mercer Management Consulting's global energy utilities. Phil began his career as a metals exploration geologist with Freeport-McMoRan and with Chevron.

He holds a B.S. in geology from University of New Hampshire, an M.S. in Economic Geology from the University of Arizona, and an M.B.A. from Dartmouth.



Kiran Kumaraswamy is US Director of Market Development at AES Energy Storage. In this role, he is directly responsible for identifying markets and applications that are attractive for energy storage development and educating potential customers on the benefits of energy storage. His work involves implementing regulatory and policy solutions that create access to key markets. Kiran also works with all the electricity industry stakeholders, trade associations and regulators. Prior to joining AES, he worked as a Senior Manager in ICF International advising private sector clients on wholesale power market and transmission issues.

Kiran holds an MS in Electrical Engineering from University of Wisconsin, Madison and a BS in Electrical Engineering from the University of Madras, India.



Dr. Jonathan Raab, President of Raab Associates, is the convener and moderator of the Energy Policy Roundtable in the PJM Footprint. He has also been running the New England Electricity Restructuring Roundtable since 1996.

A national leader in applying consensus building processes to energy, environmental, and regulatory issues, some of his major cases include: the Regional Greenhouse Gas Initiative (RGGI); the New England Demand Response Initiative (NEDRI); market rules for Alberta; the stakeholder process redesigns for PJM and MISO; and Grid Modernization in several states. He has also run stakeholder processes on various issues for U.S. DOE, U.S Fish & Wildlife, and U.S. EPA.

Prior to establishing Raab Associates, Jonathan was the Assistant Director of the Electric Power Division at the Massachusetts Department of Public Utilities. He holds a Ph.D. from MIT, and an M.S. and A.B. from Stanford. Jonathan has taught courses at the University of Oregon, Stanford, UMass (Boston) and MIT. He is the author of *Using Consensus Building to Improve Utility Regulation*.