CCIF SPEAKER BIOS

OPENING REMARKS



Christopher J. Ayers

***President,* National Association of State Utility Consumer Advocates (NASUCA)**
***Executive Director,* North Carolina Utilities Commission Public Staff**

Christopher J. Ayers has served as Executive Director of the North Carolina Utilities Commission Public Staff since July 1, 2013 and currently serves as President of the National Association of State Utility Consumer Advocates (NASUCA). The Public Staff represents the using and consuming public and investigates electric, gas, water, wastewater, and transportation matters before the North Carolina Utilities Commission. Prior to joining the Public Staff, he practiced law in Raleigh, North Carolina with the law firm of Poyner Spruill LLP from June 2009 to July 2013 and Hunton & Williams LLP from August 2003 to June 2009. He served a two-year term on the North Carolina Environmental Management Commission from July 2011 through June 2013.

Mr. Ayers serves on the Consumer Advocates for the PJM States Board of Directors, Department of Energy Electricity Advisory Committee, Critical Consumer Issues Forum Executive Committee, Financial Research Institute Advisory Board, Keystone Energy Board, New Mexico State University Center for Public Utilities Advisory Council, and is Chairman of the State Employees Credit Union Board of Directors.

Mr. Ayers earned his undergraduate degree from Duke University and received his Juris Doctor with Honors from the University of North Carolina. He resides in Apex, North Carolina with his wife Rebecca.



The Honorable Abigail Anthony

***Chair,* NARUC Energy Resources & the Environment Committee**
***Commissioner,* Rhode Island Public Utilities Commission**

Abigail Anthony was appointed by Governor Gina Raimondo to the Rhode Island Public Utilities Commission in 2017. Commissioner Anthony is currently the Chair of the Committee on Energy Resources and the Environment of the National Association of Regulatory Utility Commissioners and the President of the Board of the New England Utility Cybersecurity Integration Collaborative. Previously, Commissioner Anthony was the director of Acadia Center's Grid Modernization and Utility Reform Initiative, and the organization's Rhode Island director. During her time as director of Acadia Center, she was appointed by Governors Carcieri and Chafee to the Rhode Island Energy Efficiency and Resource Management Council, where she served from 2010 to 2017 overseeing the implementation of the state's energy efficiency programs and policies.

Commissioner Anthony holds a PhD in Environmental and Natural Resource Economics from the University of Rhode Island. She received her MA and BA in economics from the University of Montana. Commissioner Anthony is a lifelong Rhode Islander and lives in Jamestown with her husband and three sons. Abigail is especially devoted to serving as the president of the congregation of Temple Shalom, in Middletown, Rhode Island.

SETTING THE STAGE REMARKS



Emily Sanford Fisher

General Counsel, Corporate Secretary & Senior Vice President, Clean Energy
Edison Electric Institute (EEI)

Emily Sanford Fisher is General Counsel, Corporate Secretary, and Senior Vice President, Clean Energy for the Edison Electric Institute (EEI) in Washington, D.C. Emily is responsible for managing EEI's litigation and legal affairs, covering a wide range of energy and environment regulatory and policy issues, at the state and federal level. She also oversees and coordinates strategic clean energy engagement across EEI and across the federal government.

Prior to joining EEI in 2008, Emily was a Foreign Service Officer with the U.S. Department of State. She served at the U.S. Embassies in Bangkok, Thailand and Bogotá, Colombia. Emily also worked at the law

firms Dewey Ballantine LLP and Dickstein Shapiro LLP in Washington, D.C., representing investor-owned electric companies and independent power producers in a range of regulatory proceedings before the Federal Energy Regulatory Commission and the Securities and Exchange Commission.

Emily received a B.A. in international affairs with a concentration in economics from the George Washington University and a J.D. from Georgetown University Law Center, where she was the Administrative Editor of The Georgetown Environmental Law Review. She is admitted to practice law in Maryland and the District of Columbia. She was 2014-2017 Co-Chair of the American Bar Association's Committee on Climate Change, Sustainable Development and Ecosystems and is currently one of that group's Vice Chairs for Deep Decarbonization. She is the legal counsel to the Women's Energy Resource Council and is a member of the Women's Energy Network National Advisory Council. She was appointed to the Energy Systems Integration Group's Advisory Council in 2019.



Neva Espinoza

Vice President, Energy Supply and Low-Carbon Resources

Electric Power Research Institute (EPRI)

Neva Espinoza is the Vice President, Energy Supply and Low-Carbon Resources at the Electric Power Research Institute (EPRI).

In this role she is leading a team focused on the research, development, and application of technologies for safe, reliable, and affordable power generation while supporting energy transformation in the power sector. Research areas are focused on a range of energy supply technologies, including both existing and future generating assets and how they can be best leveraged in a deeply decarbonized power system. This includes the existing fossil fleet, large-scale renewable generation assets, bulk energy storage, and the production and use of low-carbon energy carriers.

In addition, Espinoza is leading the Low-Carbon Resources Initiative, in partnership with Gas Technology Institute, to accelerate development and deployment of low-carbon technologies.

Espinoza previously served as the Director of R&D for EPRI's Generation Sector. She joined EPRI in January 2012 with more than 10 years of operational and engineering experience in the power industry, across a diverse set of assets and technologies. Prior to EPRI, Espinoza served in technical and leadership positions at NRG's Arthur Kill Power Station, Exelon's Oyster Creek Power Station and Knolls Atomic Power Laboratory.

Espinoza received a Bachelor of Science degree in mechanical engineering from Rutgers University and Master of Business Administration degree from Wake Forest University. She is a graduate of the U.S. Navy's Office Nuclear Power Program and held a senior reactor operator license from the Nuclear Regulatory Commission.



Tanuj Deora

Director, Clean Energy; Team Lead, Carbon Free Electricity

White House Council on Environmental Quality (CEQ), Executive Office of the President

Tanuj has spent over two decades in cleantech, the last 15 of which have been focused on transitioning the electric power sector to climate sustainability. His prior roles have included developing wind energy and transmission projects for EDP Renewables, serving in the cabinet of Colorado Governor John Hickenlooper as Director of the Colorado Energy Office, and leading research and program development as Chief Strategy Officer of the Smart Electric Power Alliance. Tanuj joins CEQ from his role as Vice President of Market Innovation at Uplight, a software company enabling utilities to better design and deliver customer programs for demand side management. Tanuj started his career as an engineer in the chemical industry, and later served as a Community Health Engineer as Peace Corps volunteer in Jamaica.

He holds a mechanical engineering degree of the University of Texas at Austin and an MBA from Harvard Business School. In his free time he enjoys travel, cycling, and hiking with his wife and two daughters, and occasionally playing blues harmonica, sitting with a neighborhood "dad band." Less enjoyable (at least recently) is his fandom of Texas Longhorn Football and Basketball, but he is still riding the high of that incredible 2019 Washington Nationals' World Series Championship.

CCIF SPEAKER BIOS

GRID-ENHANCING TECHNOLOGIES TO FACILITATE RENEWABLES DEPLOYMENT



Dr. Julia Matevosyan
Chief Engineer
Energy Systems Integration Group (ESIG)

Julia is ESIG's Chief Engineer and has more than 20 years of experience in the power industry.

Prior to joining ESIG, Matevosyan was the Lead Planning Engineer of the Electric Reliability Council of Texas (ERCOT). In her time with ERCOT, she worked on adequacy of system inertial response, system flexibility, frequency control and performance issues related to high penetration levels of inverter-based generation and ancillary services market design.

Julia received her BSc from Riga Technical University in Latvia, and her MSc and PhD from the Royal Institute of Technology (KTH) in Sweden.



Bruce Tsuchida
Principal
The Brattle Group

Mr. Tsuchida specializes in assessing the impact of new technologies and regulatory changes, including analysis of evolving wholesale electric markets and modeling, impact of renewable and other new technologies' on system operations, utility business, and assets values, including contracts.

Mr. Tsuchida's experience spans a wide range of utility consulting projects, ranging from integration studies for intermittent resources such as wind and solar power, storage technologies, operational logic studies, ancillary service studies, and analyses required for regulatory proceedings. Regulatory proceeding related analyses include cost benefit analyses, such as those for evaluating new technologies and the resource portfolio, and various cost of service studies. He has evaluated various utility business model options associated with the change in markets (structural changes through deregulation and landscape changes such as increase in renewables). These studies range from large interconnected systems to small island system, several with testimonies and/or affidavits filed.

Prior to joining Brattle, Mr. Tsuchida was a principal at Charles River Associates. He was also a project manager at the Tokyo Electric Power Company (TEPCO), where he oversaw international generation development projects and was the lead engineer for Southeast Asia generation units. While at TEPCO, he concentrated primarily on the design, construction, operation, and maintenance of generation assets.

Mr. Tsuchida holds two M.S. degrees from the Massachusetts Institute of Technology, one in Electrical Engineering and Computer Science and the other in Technology and Policy. He holds a B.E. degree in Mechanical Engineering from Waseda University in Tokyo, Japan.

ADVANCED NUCLEAR ENERGY (FISSION & FUSION)



Jeffrey S. Merrifield
Partner
Pillsbury Winthrop Shaw Pittman LLP

The Honorable Jeffrey S. Merrifield, a former presidential appointee to the Nuclear Regulatory Commission, is widely recognized as an international thought leader on nuclear power and the deployment of complex energy systems for the avoidance of carbon generation.

During his three decades of involvement in the energy industry, Jeff has developed wide-ranging relationships throughout the international nuclear industry and is considered a leader in the deployment of advanced complex energy systems used to decarbonize energy production. He assists large and developing

nuclear utilities, suppliers and governments in effectively meeting their regulatory requirements and strategic objectives regarding the safe deployment of fission and fusion based energy.

Before serving as Commissioner to the U.S. Nuclear Regulatory Commission (U.S. NRC) starting in October 1998, Jeff served as majority counsel and staff director of the U.S. Senate Subcommittee on Superfund, Waste Control and Risk Assessment. In this capacity, he drafted legislation dealing with solid and hazardous waste disposal and cleanup regulation and authored the first federal law providing for the safe recycling of used rechargeable batteries.

Now a partner and head of Pillsbury's energy practice, Jeff's experience includes advising Brookfield Business Partners L.P. on its $4.6 billion acquisition of Westinghouse Electric Company. He also provides counsel and representation to utilities, suppliers and licensees before the Nuclear Regulatory Commission regarding how to meet a variety of NRC regulatory requirements. Jeff serves as a counselor and advisor to X-energy, the developer of an innovative high-temperature gas advanced reactor, Terrestrial Energy which is developing an innovative molten salt reactor and General Fusion which is deploying a state-of-the-art fusion energy design. He also serves as outside legal advisor and board member for Clearpath Foundation, a free-market, clean energy advocacy organization which promotes nuclear power, carbon capture and hydropower as non-carbon-based solutions to providing clean energy. He serves as external regulatory counsel for the Fusion Industry Association and advises over a half-dozen non-governmental organizations advocating for carbon-free generation. He provides significant pro-bono legal advice including recently assisting in the successful remediation and redevelopment of a former asbestos site adjacent to a historically African American community.

Jeff is a 1985 graduate of Tufts and received his J.D. from the Georgetown University Law Center in 1992.



Dr. Rita Baranwal

Chief Technology Officer

Westinghouse Electric Company

As Chief Technology Officer at Westinghouse, Dr. Rita Baranwal leads the company's global research and development investments and spearheads a technology strategy to advance the company's innovative nuclear solutions. She brings more than 30 years of experience to this role, which she has held since January 2022.

Previously, Dr. Baranwal served as Chief Nuclear Officer and Vice President of Nuclear at the Electric Power Research Institute (EPRI). She had overall management and technical responsibility for the research and development (R&D) activities conducted by EPRI with its global membership related to nuclear generation, providing support to more than 80 percent of the world's existing and advanced commercial nuclear fleet.

Before joining EPRI, Baranwal served as Assistant Secretary for the Office of Nuclear Energy in the U.S. Department of Energy (DOE) in a U.S. President-appointed and Senate-confirmed role. She led efforts to promote R&D on existing and advanced nuclear technologies that sustain the U.S. fleet of nuclear reactors and enable the deployment of advanced nuclear energy systems.

Prior to the DOE, Dr. Baranwal directed the Gateway for Accelerated Innovation in Nuclear (GAIN) initiative at Idaho National Laboratory. She was responsible for providing the nuclear industry and other stakeholders access to DOE's state-of-the-art R&D expertise, capabilities, and infrastructure to achieve faster and cost-effective development, demonstration, and ultimate deployment of innovative nuclear energy technologies. Under her leadership, GAIN positively impacted over 120 companies.

Before joining the Idaho National Laboratory, Dr. Baranwal served as Director of Technology Development & Application at Westinghouse. There, she led the creation and development of game-changing technologies and managed characterization and hot cell laboratories. Her previous positions at Westinghouse included director of Core Engineering and manager of Materials and Fuel Rod Design. Prior to joining Westinghouse, she was a manager in Materials Technology at Bechtel Bettis, Inc. where she led and conducted R&D in advanced nuclear fuel materials for U.S. Naval Reactors.

Dr. Baranwal is a Fellow of the American Nuclear Society (ANS). She serves on the Atlantic Council's Nuclear Energy and National Security Coalition, the Board of Scholars at American Council for Capital Formation (and is the first non-economist selected to serve on this Board), the ANS's International Council, and Advisory Boards for the Nuclear Engineering departments of the University of Michigan and North Carolina State University.

She has previously served on Advisory Boards for MIT's Materials Research Laboratory and UC Berkeley's Nuclear Engineering Department, and also was adjunct faculty at University of South Carolina's nuclear engineering graduate program. Dr. Baranwal is a past

Chairman of the Executive Committee of the American Nuclear Society's (ANS) Materials Science and Technology Division. She has also served on the Boards of Big Brothers Big Sisters-Pittsburgh and North Hills Community Outreach.

Dr. Baranwal has a bachelor's degree from Massachusetts Institute of Technology in materials science and engineering and a master's degree and Ph.D. in the same discipline from the University of Michigan.

ZERO-CARBON FUELS (HYDROGEN, ETC.)



Sandra E. Safro

Associate General Counsel, Energy & Technology Regulation

Edison Electric Institute (EEI)

Sandi Safro is Associate General Counsel, Energy and Technology Regulation at the Edison Electric Institute. Her work includes issues related to FERC regulation and the regulation of emerging energy technologies.

Prior to joining EEI, Sandi was a partner in the energy practice of the global law firm K&L Gates, where she co-led the firm's global Hydrogen practice, including publication of The H2 Handbook. In addition, Sandi co-led the firm's global Oil, Gas, and Resources practice and advised clients on regulatory, commercial, and policy issues in the emerging hydrogen industry, as well as various issues related to the transportation of natural gas by pipeline in interstate commerce and liquefied natural gas.

Sandi co-founded and co-leads the Women in Hydrogen networking group and also co-hosts the bi-weekly podcast, Hydrogen Rising.



Kristine Wiley

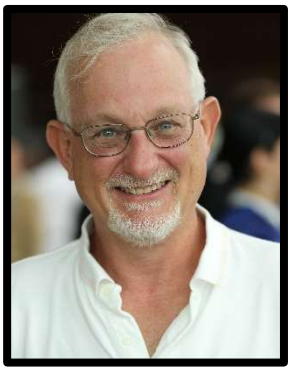
Vice President, Hydrogen Technology Center

GTI

As Vice President of GTI's Hydrogen Technology Center, Kristine Wiley works across the organization to synchronize deep industry knowledge and technical expertise as well as large scale labs and research facilities to integrate the use of hydrogen into the energy system. In her role, she brings together public-private partnerships to facilitate R&D and enable the transition to a low-carbon future. She has been working in the energy industry for nearly two decades with a continued focus on technological innovation and reducing climate impacts.

Kristine holds a BA in Biological Sciences from the University of Chicago as well as an MBA from the University of Chicago Booth School of Business.

CARBON CAPTURE, UTILIZATION & STORAGE



Howard J. Herzog

Senior Research Engineer

Massachusetts Institute of Technology (MIT)

Howard J. Herzog is a senior research engineer in the MIT Energy Initiative (MITEI) and Executive Director of MITEI's Carbon Capture, Utilization, and Storage low-carbon energy center. He received his undergraduate and graduate education in chemical engineering at MIT. He has industrial experience with Eastman Kodak, Stone & Webster, Aspen Technology, and Spectra Physics. Since 1989, he has been on the MIT research staff, where he works on sponsored research involving energy and the environment, with an emphasis on greenhouse gas mitigation technologies. He was a Coordinating Lead Author for the IPCC Special Report on Carbon Dioxide Capture and Storage (released September, 2005) and a US delegate to the Carbon Sequestration Leadership Forum's Technical Group (June 2003-September 2007). He was

awarded the 2010 Greenman Award by the IEAGHG "in recognition of contributions made to the development of greenhouse gas control technologies". In 2018, he authored a book entitled Carbon Capture for the MIT Press Essential Knowledge Series.



Emily Sanford Fisher

General Counsel, Corporate Secretary & Senior Vice President, Clean Energy

Edison Electric Institute (EEI)

Emily Sanford Fisher is General Counsel, Corporate Secretary, and Senior Vice President, Clean Energy for the Edison Electric Institute (EEI) in Washington, D.C. Emily is responsible for managing EEI's litigation and legal affairs, covering a wide range of energy and environment regulatory and policy issues, at the state and federal level. She also oversees and coordinates strategic clean energy engagement across EEI and across the federal government.

Prior to joining EEI in 2008, Emily was a Foreign Service Officer with the U.S. Department of State. She served at the U.S. Embassies in Bangkok, Thailand and Bogotá, Colombia. Emily also worked at the law firms Dewey Ballantine LLP and Dickstein Shapiro LLP in Washington, D.C., representing investor-owned electric companies and independent power producers in a range of regulatory proceedings before the Federal Energy Regulatory Commission and the Securities and Exchange Commission.

Emily received a B.A. in international affairs with a concentration in economics from the George Washington University and a J.D. from Georgetown University Law Center, where she was the Administrative Editor of The Georgetown Environmental Law Review. She is admitted to practice law in Maryland and the District of Columbia. She was 2014-2017 Co-Chair of the American Bar Association's Committee on Climate Change, Sustainable Development and Ecosystems and is currently one of that group's Vice Chairs for Deep Decarbonization. She is the legal counsel to the Women's Energy Resource Council and is a member of the Women's Energy Network National Advisory Council. She was appointed to the Energy Systems Integration Group's Advisory Council in 2019.

Long-Duration Storage & Advanced Demand Efficiency



Jeffery B. Preece

Director, Research & Development, Net-Zero Resources

Electric Power Research Institute (EPRI)

Jeffery Preece is a director of research and development at the Electric Power Research Institute (EPRI).

In this role, Jeffery is focused on implementing world-class research portfolios to support the energy economy's transition to a net-zero emissions future. Jeffery serves as EPRI's lead on the joint EPRI-GTI Low-Carbon Resources Initiative (LCRI) and leads EPRI's research portfolios focused on long duration (bulk) energy storage, advanced power generation cycles, CO2 capture and storage, and net-zero industrial clusters.

In prior roles at EPRI, Jeffery led the Water Management Technology program and Energy-Water Nexus Team which focused on desalination and cooling system technology development and deployment.

Prior to joining EPRI in 2014, Jeffery led water treatment engineering and operations services at a U.S. electric utility.

Jeffery earned a Master of Business Administration from Wake Forest University and a B.S. in chemical engineering from North Carolina State University.

CCIF SPEAKER BIOS



Philip Mihlmester

Executive Vice President, Global Energy

ICF International

Philip Mihlmester serves as Executive Vice President, Global Energy, at ICF International, a publicly traded consulting and professional services firm with over 8,000 employees worldwide. Founded in 1969, ICF has been providing consulting services to the energy industry for over 50 years.

Phil coordinates energy-related programs, analyses, and expertise across four continents. His work involves award-winning next-generation energy efficiency programs featuring advanced technology and customer engagement. Phil advises senior industry and government clients on grid modernization, including deployment and valuation of distributed energy resources and advanced grid analytics. He works on decarbonization strategy, including market analysis of renewables, such as grid-scale wind, solar, and storage. He also focuses on the electrification of key end-uses, including transportation, industry, buildings, and the continued role of natural gas. The U.S., UK, India, and China currently benefit from elements of these programs and strategies.

Phil's work in the energy sector spans nearly five decades. In the 1970s, he worked on renewable energy systems and the environmental impacts of advanced energy systems, co-authoring a chapter in the Handbook of Solar Energy published by Marcel Dekker in 1978.

He then worked on synthetic fuels issues and global energy markets, leading energy modeling and data analytics work for the U.S. Energy Information Administration.

Supporting the U.S. Environmental Protection Agency in administering its ENERGY STAR program in the 90s, Phil helped develop the Portfolio Manager benchmarking tool for building energy consumption. His expertise contributed to electric load research for the utility industry, about which he authored several monographs and papers.

With a background in energy markets, restructuring the electric sector, and carbon policy, Phil played a key role in developing ICF's energy efficiency program implementation business. The initiative delivers award-winning programs for over 50 utilities across the U.S. and Canada, and government programs in the UK, India, and China. Phil regularly speaks and writes about various energy-related issues.

Phil is also a senior fellow with the ICF Climate Center. In this role, he provides compelling research and objective perspectives on a wide range of climate-related topics to help advance climate conversations and accelerate climate action.

Phil holds an MS in Operations Research from the George Washington University. He completed a one year graduate program in international economics at Georgetown University, and holds an AB from Columbia University.

CCIF EXECUTIVE DIRECTOR



Katrina McMurrian

Executive Director

Critical Consumer Issues Forum (CCIF)

A former Florida Public Service Commissioner (2006-2009), Katrina McMurrian currently serves as Executive Director of the Critical Consumer Issues Forum (CCIF), a unique national forum in which state utility regulators, consumer advocates, and energy companies – via a series of facilitated, interactive dialogues – engage in productive debate and often develop consensus on issues that are not only important to these three core communities but also to consumers, policymakers, and other stakeholders. As a result of this collaboration, CCIF has produced valuable reports on energy topics including grid modernization, distributed generation, consumer solutions, smart communities, electric transportation, resilience, and supporting electricity customers through times of crisis (COVID-19).

McMurrian also serves as Executive Director of the Nuclear Waste Strategy Coalition (NWSC), an ad hoc organization representing the collective interests of member state utility regulators, state consumer advocates, other state officials, tribal governments, local governments, electric utilities with operating and shutdown nuclear reactors, and other public and private sector experts, on nuclear waste policy matters.

In these roles, McMurrian frequently interacts with Congress; Administration officials; state and federal utility regulators; state and national consumer organizations; other state, tribal, and local officials; industry representatives; and numerous other public and private stakeholders. In addition, she serves on the Southwest Research Institute Board of Advisory Trustees and as a member of the American Nuclear Society (ANS), the Institute for Nuclear Materials Management (INMM), and U.S. Women in Nuclear (U.S. WIN).

A Northwest Florida native, McMurrian received a bachelor's degree in finance and an MBA from Florida State University. She and her husband currently reside near Nashville, Tennessee.