DOE Electricity Advisory Committee Meeting
June 9-10, 2021
Panelist and Speaker Bios

Day 1

Presentation: Update on the DOE Office of Electricity (OE) Programs and Initiatives

Patricia Hoffman, Acting Assistant Secretary, Office of Electricity, U.S. Department of Energy

Serving as the Acting Assistant Secretary for the Office of Electricity (OE) at the U.S. Department of Energy (DOE), Ms. Patricia A. Hoffman also served as Acting Under Secretary for Science and Energy from January 2017 until November 2017 when the U.S. Senate confirmed Mark Menezes as Under Secretary of Energy. Ms. Hoffman served as Acting Assistant Secretary for OE from January 2017 until October 2017 when the OE Assistant Secretary was confirmed by the U.S. Senate.

Ms. Hoffman was named Assistant Secretary for OE from June 2010 to January 2017, after serving as Principal Deputy Assistant Secretary since November 2007. The focus of her responsibility was to provide leadership on a national level to modernize the electric grid, enhance the security and reliability of the energy infrastructure and facilitate recovery from disruptions to the energy supply both domestically and internationally.

Ms. Hoffman holds a Bachelor of Science and a Master of Science in Ceramic Science and Engineering from Pennsylvania State University.

Presentation: Update on DOE Office of Cybersecurity, Energy Security, and Emergency Response (CESER) Programs and Initiatives

Puesh M. Kumar, Acting Principal Deputy Assistant Secretary, Office of Cybersecurity, Energy Security, and Emergency Response, U.S. Department of Energy

Kumar leads DOE's mission to address cyber, physical, and natural hazards and threats to the U.S. energy infrastructure. Kumar has over 15 years of experience in grid modernization, cybersecurity, and emergency response within the energy sector.

Most recently, Kumar was the principal manager for cybersecurity engineering and risk management at Southern California Edison. There, he led a team that addressed cyber threats to critical infrastructure at one of the largest electric utilities in the United States.

Kumar previously served as director of preparedness and exercises for CESER's Infrastructure Security and Energy Restoration division and as senior advisor for policy and strategy at CESER. In those capacities, he led the development of national-level policies, strategies, and programs related to energy sector hazards and threats.

Kumar has also held industry positions at the American Public Power Association as director of engineering and operations and at Memphis Light, Gas, and Water as a power systems engineer.

Presentation: Working Together Towards a Sustainable and Resilient Zero Carbon Emission Future: Hydrogen, Batteries, & Natural Gas

Moderator

Kimberly Denbow, Managing Director for Security and Operations, American Gas Association

Kimberly Denbow is the Managing Director of Security & Operations at the American Gas Association (AGA) and has been with AGA for over 22 years. Ms. Denbow has served as staff executive for multiple AGA Operations Section technical committees, including the AGA Natural Gas Security Committee and the AGA Board-appointed Cybersecurity Strategy Task Force. Ms. Denbow developed the AGA security program and helped stand up the Downstream Natural Gas Information Sharing & Analysis Center. She supports AGA's resilience and reliability initiatives and AGA's all-hazards emergency preparedness activities.

As the industry liaison to numerous U.S. Department of Homeland Security and Department of Energy-sponsored programs targeting natural gas utility physical and cybersecurity operations, she helps lead efforts that drive the coordination of multiple Federal government security initiatives – all designed to benefit the oil and natural gas sector. More recently, Ms. Denbow has accepted appointments to the Transportation Security Administration Surface Transportation Security Advisory Committee and Department of Energy Electricity Advisory Committee. Ms. Denbow is an active member of the Oil & Natural Gas Sector Coordinating Council (ONG SCC) and has served as the chair of the ONG SCC Intelligence Sharing Task Group (to improve information sharing between the asset-owners and the government intelligence community), ONG SCC Cybersecurity Working Group, and the ONG SCC Metrics Working Group. She presently co-chairs the ONG SCC Cross-sector Working Group. Ms. Denbow is also an active member of the Pipeline Sector Coordinating Council and chairs the Pipeline Cybersecurity Working Group.

Ms. Denbow has a Bachelor of Science in marine biology from the University of Florida and a Master of Science in Environmental Engineering from the University of Michigan

Panelists

Neva Espinosa, Vice President for Energy Supply and Low-Carbon Resources, Electric Power Research Institute

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 system. 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.

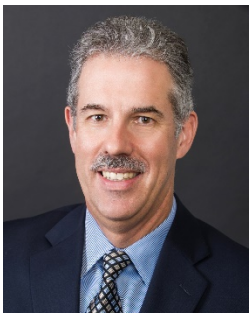
Espinoza received a Bachelor of Science degree in mechanical engineering from Rutgers University and Master of Business Administration degree from Wake Forest University. She is a graduate of the U.S. Navy's Officer Nuclear Power Program and held a senior reactor operator license from the Nuclear Regulatory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

Michael Rutkowski, Senior Vice President for Research and Technology Development, Gas Technology Institute

Mike oversees GTI's Research & Technology Development team, advancing early-stage energy technologies to commercial solutions for the energy system's greatest challenges. This includes research, development, and demonstration of technologies needed to decarbonize our integrated energy system in an affordable and resilient manner while meeting a diverse set of customer energy needs, spanning the energy value chain from low-carbon energy supply, conversion, storage/delivery, to energy end use at every phase of the technology development cycle.

Prior to GTI, Mike began his 30+ year energy career as a field engineer with GE, and then moved into management consulting working with energy & utility companies on energy technology and business strategy issues.

Mike earned a B.S. degree in mechanical engineering from the University of Illinois and is a Professional Engineer in Illinois. He also earned an M.B.A. from Northwestern University's Kellogg School of Management.



Robert Wimmer, Director for Energy and Environmental Research, Toyota Motor North America

Mr. Wimmer directs Toyota Motor North America's (TMNA) Energy and Environmental Research group. He has been with Toyota since 2003 and currently leads a team of research engineers and scientists assessing how changes in energy and environmental technology, policy and regulation will affect the automotive industry. Research areas include petroleum and alternative fuels, electric-drive and automated vehicle technologies, mobility as a service, power generation and carbon monetization.

Mr. Wimmer is also responsible hybrid, plug-in electric and fuel cell vehicle external affairs and technical activities within Sustainability Regulatory Affairs. He coordinates these with other Toyota divisions in the US and abroad. Additionally, he manages energy collaborations with other corporations, the company's interaction with the US Department of Energy and a portion of TMNA's university and think-tank research activities.

Prior to joining Toyota, Mr. Wimmer was Technical Director of Fuel Cell Bus Programs at Georgetown University for twelve years where he provided technical and program management oversight during the design, fabrication and testing of five fuel cell / battery hybrid transit buses.

A native of California, Mr. Wimmer has an MS degree in Systems Management from the University of Southern California and a Mechanical Engineering degree from California State Polytechnic University in San Luis Obispo, CA.

Marcel Galjee, Vice President and Managing Director for Energy and New Business at Nouryon

William Marcel Galjee presides as Vice President & Managing Director the Energy & New Business team within Nobian, the new name of Nouryon Industrial Chemicals. Nobian is an European leader in the production of essential base chemicals for industries and employs 1,600 people.

Within Nobian the Energy & New Business team is responsible for managing the business' energy and utilities portfolio, while at the same time building a new business in green hydrogen and circular carbon. The team is actively pursuing and driving opportunities in electrochemistry, circular and hydrogen economy, resulting in a strong international project business development portfolio.

Prior to his present role, Marcel worked as an international consultant at PwC within the large energy spectrum and in various energy related functions at Vattenfall Sweden, Germany and the Netherlands.

Annemarie Manger, Director of Sustainability and Health, Safety, Environment, and Quality, Tata Steel Europe

Annemarie Manger is Director of Sustainability and HSEQ for Tata Steel Europe and responsible for the development and realization of the decarbonization strategy of Tata Steel Europe, including the NL decarbonization program.

She started in 2008 at Tata Steel as Manager of Projects. She redesigned the power generation strategy of the IJmuiden site and become responsible for the Energy Efficiency of al of the sites of Tata Steel Europe. She was appointed as member of the Dutch Management Team in 2011, and the UK management team in 2013. In 2015, she added the overall European responsibility to this role. When the IJmuiden decarbonization strategy, as developed within Engineering, was approved in 2019, Annemarie was appointed as Director of Sustainability, reporting to the CEO of Tata Steel in Europe.

She is a chemical engineer and started her career as a process engineer with EPC contractor Fluor, designing various technologies in oil and gas and power. In her 20 years with Fluor, Annemarie went through the ranks of project engineer, engineering manager, project manager, functional head of project controls and ultimately project director and she has a demonstrable experience in all phases of execution.

Steve Elliott, Director for Marketing & Business Development, Enbridge Inc.

In his current role, Steve has responsibility for commercial activities in the New England market for Enbridge's gas transmission business.

A 15-year veteran with the company, he is a recent transplant from Western Canada where in addition to overseeing greenfield project development for the region he led the development of a Hydrogen strategy and Hydrogen advocacy for Enbridge's gas transmission assets.

Prior to joining Enbridge, he spent a decade at Canadian Pacific Railway in a variety of roles including operations, customer service, strategy, and finance.

Steve holds an MBA from Edinburgh Business School.

Day 2

Presentation: Electric Vehicle Integration Report

Chris Irwin, Program Manager for Transactive Energy, Communications, and Interoperability in Smart Grid, U.S. Department of Energy

Christopher Irwin has spent over 24 years in a diverse spectrum of high technology fields from HVAC to semiconductor manufacturing, communication networks, and Smart Grid infrastructure.

At the DOE Office of Electricity, he has managed over $1.7B in grid modernization projects. Chris leads DOE's Smart Grid standards and interoperability efforts, DOE's role in the Green Button consumer data access initiative, and the OE Dynamic Controls program, which includes Transactive Energy.

Chris holds a B.S. in Mechanical Engineering from the University of Maryland, College Park, and an M.B.A. from the W.P. Carey School of Business at Arizona State University.

Lee Slezak, Vehicle Systems and Testing Manager, U.S. Department of Energy

Lee manages the Grid and Infrastructure Research and Development Activities for Vehicle Electrification within the Department of Energy's Vehicle Technologies Office. His responsibilities include developing and implementing plans for R&D on: High Power Charging; Wireless Charging; Smart Charge Management to minimize grid impacts of charging; Cybersecurity for vehicle charging; and codes and standards for charging. Previously, Lee managed the DOE's Vehicle Systems Program and the $400 million ARRA Transportation Electrification program. Lee has been at the DOE for 26 years and has worked on advanced technology vehicle initiatives for the past 29 years.

Presentation: Resilience Panel Metrics Panel and Discussion

Moderator

Rick Mroz, Managing Director, Resolute Strategies

Richard Mroz "Rick" is the founder and Managing Director of Resolute Strategies, LLC and also Senior Director for Strategic & Regulatory Affairs at Archer Public Affairs in Trenton, NJ. He stepped down from the New Jersey Board of Public Utilities to start his firm. He has a long and distinguished career in law, government, and public service and a leading advocate in securing and making the grid more resilient from both cyber and physical attacks. He is a regular adviser to industry and frequent commentator on energy and security issues. He is the immediate past President of the New Jersey Board of Public Utilities. Governor Chris Christie nominated him for this position on September 18, 2014; the nomination was unanimously approved by the New Jersey Senate on September 22, 2014.[1] Due to his position, Mroz was a member of the Governor's Cabinet.[2] His experiences are as a regulator, lawyer, lobbyist, banker, consultant and thought leader on issues including energy markets & technologies, cybersecurity, water & wastewater policy, and infrastructure development & financing in various industries.

In July 2018 Richard Mroz was appointed by United States Department of Energy Secretary Rick Perry as a member of the USDOE Electric Advisory Committee which provides advice to the Department programs and priorities on issues of the evolving grid, distributed energy resources, and reliability of the electric system. He serves on the Advisory Board to the ClearPath Foundation a Washington, DC based policy organization advocating for policies advancing cleaner energy generation with hydropower, carbon capture, and new nuclear technologies.

Richard Mroz is also Senior Adviser to Protect Our Power a national non-industry non-profit advocacy organization supporting best practices and investments in cybersecurity for the energy, utility and critical infrastructure industries. Continuing his focus on resilience, he is a Distinguished Corporate Fellow advising the Global Resilience Institute (GRI) at Northeastern University, Boston, MA on protection and investments necessary to enhance and protect critical infrastructure.

Panelists

Bobby Jeffers, Principal Systems Scientist, Sandia National Laboratory

Dr. Robert “Bobby” Jeffers is a Principal Member of the Technical Staff at Sandia National Laboratories, where he has helped to build a growing body of energy resilience and sustainability research since 2013. Robert applies techniques such as system dynamics, power systems modeling, interactive visualization, agent-based modeling, and spatial network modeling to diverse problems concerning the intersection between human, natural, and engineered systems. His current portfolio of research is largely supported by the US Department of Energy across multiple programs. Robert’s passion for improving real-world sustainability and resilience is demonstrated through impactful

projects consisting of large and diverse research teams working collaboratively with stakeholders such as city and state governments, electric utilities, non-profit organizations, academia, and national laboratories. He began his career as a research scientist at Idaho National Laboratory, and completed an MS in Electrical Engineering at Virginia Tech, followed by a PhD in Environmental Science at Washington State University.

Peter Larsen, Staff Scientist and Deputy Leader for Electricity Markets, Lawrence Berkeley National Laboratory

Peter conducts research and analysis on electricity reliability and resiliency, energy efficiency, and regional electric system planning including: Energy Services Company Industry and Market Trends; Utility Resource Planning Practices and Trends; Western Electricity and Natural Gas Markets; Societal Impacts from Abnormal Weather; and the Reliability of the U.S. Power System. Peter holds a Ph.D. in Management Science and Engineering from Stanford University; M.S. degrees from Stanford University (Management Science and Engineering) and Cornell University (Natural Resource Economics); and a B.A. in Economics from the University of Montana at Missoula.

Daniel Brooks, Vice President of Integrated Grid, Electric Power Research Institute

Daniel Brooks is Vice President of Integrated Grid and Energy Systems at the Electric Power Research Institute (EPRI). In this role, he leads teams responsible for EPRI's research, development, and demonstration of integrated energy systems planning, delivery systems planning, grid and market operations, and the integration of renewables, energy storage, and distributed energy resources.

Mr. Brooks joined EPRI in 2004 as manager of the renewables integration research and power system studies teams. From 2011 to 2019, he managed the Grid Operations and Planning research area as a Senior Program Manager and Director responsible for transmission and distribution system operations and planning research.

Prior to joining EPRI, Brooks was Manager of Power System Studies for Electrotek Concepts, managing power quality and renewables integration research, and consulting services addressing transmission and distribution planning and operations for electric utilities, equipment vendors, and other stakeholders.

Mr. Brooks earned his Bachelor of Science and Master of Science degrees in electrical engineering from Mississippi State University and his Master of Business Administration from the University of Tennessee, Martin. He is a Registered Professional Engineer in the state of Tennessee and is a Senior Member of the IEEE Power Engineering Society.

Presentation: Discussion of Pathway Development Project

Joe Paladino, Senior Advisor, Office of Electricity, U.S. Department of Energy

Mr. Joseph Paladino has worked for most of his career in the advancement and commercialization of technology to address energy and environmental issues. His efforts in both private and public organizations have focused on waste management, energy efficiency, and energy infrastructure modernization. Over the past several years, he led efforts to convey the impact of the smart grid technologies advanced in projects funded by the American Recovery and Reinvestment Act of 2009. His current focus is to leverage this information to help decision-makers, including regulators, make informed infrastructure investments given the rapid advancement in technology, particularly with regard to the function and structure of the electric distribution system.

Mr. Paladino has a B.A. in Biology from Middlebury College and an M.S. in Civil Engineering from the University of Pittsburgh. He also holds a patent for a design for a low-level radioactive waste disposal facility.