Roosevelt Strategic Council

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SPEAKER BIOGRAPHIES

Microgrids & DERS Summit, SEPT 25 – 26, 2018

Mr. Bruce J. Walker, Assistant Secretary, Office of Electricity and Acting Assistant Secretary, Office of Cybersecurity, Energy Security, and Emergency Response, U.S. Department of Energy

Bruce J. Walker was nominated by President Donald J. Trump and confirmed by the U.S. Senate as Assistant Secretary for the Office of Electricity (OE) at the U.S. Department of Energy (DOE) in October 2017. The focus of his responsibility is 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. This is critical to meeting the Nation's growing demand for reliable electricity by overcoming the challenges of our Nation's aging electricity transmission and distribution system and addressing the vulnerabilities in our energy supply chain.

He holds a Bachelor of Electrical Engineering from Manhattan College and a Juris Doctor in Law from Pace University where he was the technical editor on the Environmental Law Review and received an Environmental Law Certificate. He has completed the Distribution Systems program from Siemens – Power Technologies International. He is a distinguished graduate of the United States Air Force Academy Preparatory School and received an Honorable Discharge from the United States Military Academy.

Military Leadership Panel Moderator: Nicholas Judson, PhD, Assistant Group Leader, Energy Systems, MIT Lincoln Laboratory (confirmed)

Dr. Nicholas Judson is a member of the technical staff at MIT Lincoln Laboratory. He is a technical advisor for the ESTCP program within the Department of Defense helping guide research and development projects to increase domestic energy resilience and energy security using the deployment of microgrids, energy storage, and the integration of renewable energy sources. He is also involved in the analysis of current and future power generation options for critical military missions to determine the best business case that increases energy resilience at the lowest lifecycle cost. He has also worked with the Department of Homeland Security and the City of Boston on methods to analyze and develop regional resilience using distributed generation and microgrids in a multi-user environment. He received his Ph.D. in Microbiology and Molecular Genetics from Harvard University and his A.B. in Biochemistry from Columbia University.

The Honorable Mrs. Phyllis L. Bayer, Assistant Secretary for Energy, Installations and Environment, U.S. Navy

On Feb. 20, 2018, Mrs. Phyllis L. Bayer was appointed Assistant Secretary of the Navy (Energy, Installations and Environment) (ASN (EI&E), following her confirmation by the Senate. Her responsibilities include oversight and policy for Navy and Marine Corps facilities sustainment and restoration and modernization; military construction; utilization and disposal of real property; environmental protection, planning and restoration ashore and afloat; conservation of natural resources; the timely completion of base realignment and closures; and safety and occupational health.

Mrs. Bayer most recently served in the Office of the Under Secretary of Defense for Personnel and Readiness as Chief of Staff. As Chief of Staff, she managed policy development that shaped and affected the readiness of over 2.4 million members of the U.S. Armed Forces. Mrs. Bayer previously served as Program Manager in the Office of the Deputy Chief Management Officer, Executive Director of the Defense Business Board and Senior Policy Analyst for OSD Test and Evaluation. Mrs. Bayer is a recipient of the OSD Meritorious Civilian Service Medal, the White House Office of Science and Technology Policy Recognition Medallion, OSD Exceptional Civilian Service Award, OSD Award for Excellence, Department of the Army Superior Civilian Service Award and the Army Achievement Medal.

Mrs. Bayer is a 1986 graduate of the University of Southern Mississippi where she received a Bachelor of Science in Geology. She holds a Master of Science in Geology from the University of Southern Mississippi, a Master of Science in Administration from Central Michigan University and a Master in Science in National Security Strategy from the National War College, Fort Leslie J. McNair, Washington, D.C.

Mr. Jordan Gillis, Acting Assistant Secretary of the Army (Installations, Energy and Environment),U.S. Army

Mr. Jordan Gillis was appointed as the Principal Deputy Assistant Secretary of the Army for Installations, Energy and Environment (ASA IE&E) and became the Acting Assistant Secretary of the Army for Installations, Energy and Environment (ASA IE&E) on 16 October 2017.

He is the primary advisor to the Secretary of the Army and Chief of Staff of the Army on all Army matters related to Installation policy, oversight and coordination of energy security and management. He is also responsible for policy and oversight of sustainability and environmental initiatives; resource management including design, military construction, operations and maintenance; Base Realignment And Closure (BRAC); privatization of Army family housing, lodging, real estate, utilities; and the Army's installations Safety and Occupational Health (SOH) programs.

Prior to his appointment, Mr. Gillis was a Director in the Energy Practice at ScottMadden, a general management consulting firm. His consulting experience focused on work for electric utility clients across North America in areas such as mergers and acquisition integration, business plan development, operational assessments, organization design and staffing, and implementation of departmental and corporate strategy.

Mr. Gillis served as a field artillery officer in the U.S. Army at posts including Fort Stewart, GA and Ar Ramadi, IZ. His awards include the Bronze Star Medal, Purple Heart, Army Commendation Medal, and Army Achievement Medal (7th award). Mr. Gillis earned a B.A. from Duke University and an M.B.A. from Emory University's Goizueta Business School.

A native of Atlanta, Mr. Gillis served on the board of Georgia Public Broadcasting and, as an Eagle Scout, was an active scouting volunteer.

The Honorable Mr. John W. Henderson, Assistant Secretary of the Air Force, Installations, Environment and Energy, USAF

The Honorable John W. Henderson is the Assistant Secretary of the Air Force for Installations, Environment and Energy. He is responsible for the formulation, review and execution of plans, policies, programs and budgets to meet Air Force installations, energy, environment, safety and occupational health objectives. Mr. Henderson was commissioned in the U.S. Army Corps of Engineers in May 1994, upon graduation from the South Dakota School of Mines, and retired in the grade of colonel in 2017 after a 23-year career. Mr. Henderson commanded an engineer battalion during operation Enduring Freedom and deployed with the 25th Infantry Division and U.S. Army Corps of Engineers during two tours supporting operation Iraqi Freedom. He held multiple command and staff positions throughout his career, to include five assignments with the U.S. Army Corps of Engineers, culminating as the Omaha District Commander. Mr. Henderson is registered as a licensed professional engineer in the state of South Dakota.

Lisa A. Jung, Deputy Assistant Secretary of Defense, Installation Energy Office of the Assistant Secretary of Defense Energy, Installations and Environment

Ms. Lisa A. Jung, a member of the Senior Executive Service, is the Deputy Assistant Secretary of Defense for Installation Energy (IE) within the Office of the Assistant Secretary of Defense for Energy, Installations and Environment (OASD(EI&E)). She is responsible for policy and oversight of the Department's installation/facility energy programs with a primary focus on improving energy performance of DoD installations to reduce costs, improve energy security and achieve mandated Administration and Department goals.

Ms. Jung has served in numerous positions at the Office of the Secretary of Defense (OSD) and the Department of the Navy. She began her career as an engineering trainee at the Philadelphia Naval Shipyard before joining the Naval Ship Systems Engineering Station (NAVSSES) in Philadelphia, Pennsylvania as a mechanical engineer upon graduating from college. At NAVSSES she worked as a ship systems engineer, troubleshooting and devising technical solutions for gas turbine engines. After completing an Office of Personnel Management executive development program in March 1994, Ms. Jung was selected for a position in OSD as the Special Assistant to the Director for the Defense Performance Review (DPR). The DPR was charged with formulating recommendations to improve DoD operations as part of Vice President Gore's reinventing government initiative. Upon completion of the DPR in September 1995, Ms. Jung took a Program Manager position in the Installations Requirements and Management Directorate within the ODUSD(Industrial Affairs and Installations).

In August 1996, Ms. Jung was recruited for a special assignment as the Executive Officer for the White House Commission on Aviation Safety and Security. Chaired by Vice President Al Gore, the Commission was chartered to conduct an intensive inquiry into civil aviation safety, security and air traffic control modernization. Ms. Jung was selected to be the Deputy Director, Competitive Sourcing and Privatization within the ODUSD(Installations) in December 1998, where she was responsible for policy and oversight of the Department's housing privatization and competitive sourcing programs. After her husband, an active duty Air Force officer was reassigned to the Philadelphia area in August 1999, Ms. Jung took the position of Deputy Director, Technology Outreach at the Carderock Division, Naval Surface Warfare Center, Philadelphia Site where she was responsible for developing strategic alliances and partnerships with industry, other government and academia. Upon her husband's retirement from active duty, Ms. Jung and her family moved back to the DC area in January 2004 where she returned to OSD and served as Deputy Director, Housing and Competitive Sourcing within ODUSD(I&E). She assumed the duties of Deputy Director, Facilities Energy and Privatization in January 2010. Ms. Jung was selected for her current position in August 2014.

Ms. Jung holds a Bachelor of Science degree in Mechanical Engineering from Drexel University and Master degrees in Mechanical Engineering and Business Administration from Widener University.

Utility Leadership Panel: Moderator: H.G. Chissell, Founder and CEO - Advanced Energy Group

H.G. Chissell is the Founder and CEO of Advanced Energy Group (AEG), a multi-city leadership platform that facilitates cross-sector access, engagement and understanding among its members and select stakeholders. AEG's mission is to accelerate the achievement of clean energy and resiliency goals of select cities and regions via facilitated stakeholder engagement.

AEG is a member sponsored organization with chapters in Boston, Chicago, New York City and Washington D.C. Members include utilities, city governments, hospitals, transit agencies, universities, national energy labs, and more

H.G. Chissell has developed stakeholder programming and served as moderator/MC for such events as VERGE Hawai'i, Distributech, CREF, ETS17&18, Microgrid Knowledge and the Energy Storage Association national conference.

Previously, H.G. Chissell served as Senior Vice President of Strategic Accounts for Viridity Energy, a software/service firm focused on virtual power generation and advanced energy optimization. Prior to Viridity Energy, Mr. Chissell led an energy strategy team at Gap International, a global consulting firm specializing in high-impact leadership.

Key accomplishments include the first behind-the-meter frequency regulation battery project in PJM, first 1 MW behind-the-meter battery project in Chicago, first full spectrum DR battery project in New York City and first multi-site EV2Grid project with the Pentagon in PJM and ERCOT

In 2014, Mr. Chissell received the Federal Energy and Water Management Award for his work with Fort Meade and American Water.

Mr. Frank Almaraz, Senior Vice President, Commercial Operations, CPS Energy

Frank Almaraz is accountable for the overall growth and operations of the energy trading and gas distribution lines of business. Previously, he has held the positions of Interim Group Executive Vice President, Treasurer & Shared Services Lead and Vice President of Energy Supply and Market Operations.

He has led the execution of several key initiatives including the acquisition of an 800MW natural gas combined cycle power plant, negotiation of a complex 25-year 400MW solar PPA and an agreement to deploy advanced metering infrastructure to the CPS Energy gas and electric systems. Frank is also on the Boards of Directors of the American Gas Association, the San Antonio Hispanic Chamber of Commerce and the DoSeum, San Antonio's Museum for Kids.

He joined CPS Energy in 2011 as Senior Director of Energy Strategy and Planning after serving in various executive roles at Energy Future Holdings in Dallas.

Almaraz has a Bachelor of Science in Industrial Distribution from Texas A&M University and a Master of Business Administration from Southern Methodist University.

Paul Chodak III Executive Vice President – Utilities for American Electric Power

Paul Chodak is executive vice president – Utilities overseeing the activities of all AEP utility operating companies. He is responsible for continuing the growth of AEP's regulated utility operations as they focus on investing in advanced technologies to deliver more reliable, affordable and cleaner energy to customers.

Chodak previously served as president and chief operating officer for Indiana Michigan Power (I&M), overseeing the company's distribution operations and a wide range of customer and regulatory relationships. I&M is an operating company of AEP headquartered in Fort Wayne, Indiana, that serves customers in Indiana and Michigan.

Additionally, Chodak has served AEP as president and chief operating officer for Southwestern Electric Power Company (SWEPCO), an operating company that serves customers in Louisiana, Arkansas and northeast Texas. He successfully led the acquisition of Valley Cooperative which doubled SWEPCO's footprint in Louisiana.

Chodak began his career with AEP in 2001 as a senior project manager. In 2002, he was named director of regional engineering for regulated generation, working with a team that provided engineering support for power plants. He was named managing director, corporate technology development in 2003, and led a team that evaluated existing pollution control technologies and recommended solutions to meet environmental compliance requirements.

In 2004, Chodak led efforts to implement AEP's environmental compliance plan as director, environmental programs and was responsible for more than $2 billion of capital investments. He was part of the team responsible for the successful completion of the Mountaineer Plant flue gas desulfurization retrofit project.

In early 2007, Chodak was named director, new generation, responsible for the installation of several natural gas fueled power plants, both simple- and combined-cycle plants, as well as AEP's integrated gasification combined cycle (IGCC)

program. He was part of the team that successfully commissioned the first two units at AEP's Harry D. Mattison Power Plant in northwest Arkansas, as well as the Stall Plant in Shreveport, La.

Prior to joining AEP, Chodak was a staff scientist at Los Alamos National Laboratory conducting research on technology and policy issues concerning nuclear power and proliferation risks. Chodak served more than seven years in the U. S. Navy as a submarine officer, earning numerous commendations and completing both submarine and chief engineer officer qualifications. Chodak is a member of the American Nuclear Society and The Sigma Xi Research Society.

Chodak graduated from the Harvard Business School Advanced Management Program in 2015. He earned a doctorate degree in nuclear engineering from Massachusetts Institute of Technology in 1996 and completed MIT's Reactor Technology Course for Utilities Executives in 2011. He holds a master's degree in civil engineering from Virginia Polytechnic Institute and State University, and a bachelor of science degree in chemical engineering with honors from Worcester Polytechnic Institute.

Chodak is a member of the Board of Directors of the Indiana Energy Association. He is also a member of the board for the Indiana Chamber of Commerce and a member of the Regional Chamber of Northeast Indiana and the Regional Opportunities Council. He also serves on the Board of Trustees for Indiana Technical Institute and the Board of Directors for United Way of Allen County. At AEP, he is an executive sponsor of the Military Veteran Employee Resource Group (MVERG).

Mr. Enrique Ruiz, Director of New Growth Programs, AES Corporation.

- Directs the analysis, nurturing, and commercialization of the company’s transformational new growth businesses

- Manages the new growth investment process and ongoing collaboration with the company's core businesses for key investments in the portfolio

Previously Mr. Ruiz was the Director of Corporate Strategy where he:

- Led cross-functional teams to define business unit strategies in North American, Central American, and South American markets

- Supported corporate strategy advancement and adjustments

- Contributed to the execution of Utility of the Future strategy in the US

Before joining AES, Mr. Ruiz was an Engagement Manager with McKinsey & Company

Working primarily in Mexico; United States; South Africa; Central America

- Assisted companies to develop entry strategy, growth strategy, and market assessment work in energy, banking and transportation industries in Latin America and the US

- Led operations, product development, and costing optimization efforts for oil and gas exploration and production companies, refineries, and oil field equipment companies in

Mr. Ruiz has also worked for GE Power as the Cost and Cycles Estimates Team Leader in Mexico

And started with GE Power as a Material Productivity Engineer in Greenville, South Carolina Area

He hold an MBA, a Master’s Degree in Engineering, and a Bachelor’s Degree in Engineering Physics.

Mr. Jay Stowe, Senior Vice President, Distributed Energy Resources, TVA

Jay Stowe, Senior Vice President for Distributed Energy Resources, joined TVA in October 2016. In this role he is working with the overall organization to develop and implement a strategy to address the changing marketplace in the electricity industry.

Prior to joining TVA, Jay spent 11 years in several positions, including Vice President of Operations, COO, and finally, President and CEO at Huntsville Utilities in Huntsville, Alabama. In his role as President and CEO he was responsible for the overall operations and leadership of the organization with over 179,000 electric, 94,000 water, 50,000 natural gas customers and approximately 620 employees.

Before coming to Huntsville, Jay served as the Director of Utilities in Shelby, North Carolina, and Newton, North Carolina. In his position in Shelby, Jay managed the Utilities Department through a severe drought in 2002 that caused the river supplying the City's water to run dry. He successfully coordinated the design of an 11.5-mile 30-inch waterline to another water source and completed construction in less than 10 months. He also led an effort to restore power after 100% of customers were without power due to a severe ice storm in 2002. In 2005, Jay was appointed by the Mayor and City Council as Interim City Manager for Shelby. He managed the City with approximately 320 employees, reporting directly to City Council. All duties were performed while continuing to serve as Utilities Director.

Jay began his career as a consulting engineer working for Black and Veatch in Cincinnati, Ohio, and Raleigh, North Carolina, and then Williams Engineering in Rock Hill, South Carolina. He has also been involved in numerous professional organizations, serving as a board member of 7 States, TVPPA and North Alabama Public Power Association, to name a few. A graduate of North Carolina State, he is married to Elaine and they have one daughter, Emma, a student at Centre College.

Mr. Andy Haun, SVP, Chief Technology Officer, Microgrids, Schneider Electric

As the CTO of Schneider Electric's Microgrid Business, Andy is responsible for driving technology roadmaps necessary to align technology evolution from Schneider Electric's various portfolios to simplify and enable deployment of effective grid-edge solutions. Aligned to this mission, his most recent technology attention has been around the combination of advanced battery-based energy storage solutions with highly efficient inverters as enabling sub-systems for broadly integrated distributed energy resources.

Beginning with Square D Company in 1985, Andy has led a variety of key product development and technical innovations during his 30+ year tenure with Schneider Electric and holds 21 patents relating to circuit protection, relaying, and power control. He has a Bachelor's Degree in Electrical Engineering from the University of Iowa and an MBA from Duke University.

His focus is on inventing new microgrid IoT solutions that enable resilience, reduce risk, optimize energy costs, and increase sustainability.

Mr. Bob Morris, Chief Engineering Services Officer, Schweitzer Engineering Laboratories

Bob Morris joined Schweitzer Engineering Laboratories, Inc. (SEL) in 1991 and is currently the chief engineering services officer, where he leads and directs the Engineering Services global organization. He has extensive experience designing, testing, and commissioning electric power system protection and control devices and systems. Mr. Morris received his BS in geophysical engineering and MS in engineering science from Montana Tech and is named on eight U.S. patents. He is a member of the Institute of Electrical and Electronics Engineers (IEEE) and serves on the advisory boards for the University of Idaho College of Engineering and Montana Tech Electrical Engineering.

Mr. Robert Kirslis, Senior Microgrid Application Engineer, Eaton Corporation - Sponsor

Robert Kirslis has more than 20 years of experience in the planning and implementation of renewable and microgrid technologies to optimize and build resiliency for utility, industrial, and DOD facilities. Serving as the Senior Microgrid Application Engineer at Eaton for its Electrical Engineering Services and Systems division, he helps customers advance their businesses by delivering highly reliable power management solutions. Across the Americas, Kirslis utilizes his expertise to help complex electrical engineering and construction projects achieve new levels of energy efficiency, power reliability and safety – and optimize the potential of renewable energy integration. Kirslis has a degree in Electrical Engineering from the Wentworth Institute and Northeastern University of Boston, Massachusetts.

Mr. Bill Lawrence, Director of the Electricity ISAC; Senior Director, NERC (confirmed)

Bill is a Senior Director at the North American Electric Reliability Corporation (NERC) and the Director of the Electricity Information Sharing and Analysis Center (E-ISAC.) He leads the department in its mission to reduce cyber and physical security risk to the grid in North America.

Prior to joining NERC, he flew F-14 Tomcats and F/A-18F Super Hornets for the Navy, and most recently was the Deputy Director, Character Development & Training Division, at the United States Naval Academy, where he also taught courses in Ethics and Cyber Security. Bill has a Bachelor's degree in Computer Science from the US Naval Academy, a Master in International Relations from Auburn Montgomery, and a Master of Military Operational Art and Science from the Air Command and Staff College. He holds a Project Management Professional certification and several cyber security certifications.

Dr. Craig Rieger, Chief Control Systems Research Engineer, Idaho National Laboratory

Craig Rieger, PhD, PE, is the Chief Control Systems Research Engineer at the Idaho National Laboratory (INL), pioneering multidisciplinary research in the area of next generation resilient control systems. In addition, he has organized and chaired nine Institute of Electrical and Electronics Engineers (IEEE) technically co-sponsored symposia and one National Science Foundation workshop in this new research area, and authored more than 40 peer-reviewed publications. Craig received B.S. and M.S. degrees in Chemical Engineering from Montana State University in 1983 and 1985, respectively, and a PhD in Engineering and Applied Science from Idaho State University in 2008. Craig's PhD coursework and dissertation focused on measurements and control, with specific application to intelligent, supervisory ventilation controls for critical infrastructure.

Craig is a senior member of IEEE, and has 20 years of software and hardware design experience for process control system upgrades and new installations. Craig has also been a supervisor and technical lead for control systems engineering groups having design, configuration management, and security responsibilities for several INL nuclear facilities and various control system architectures.

Mr. Terence R. Donnelly, President and COO, ComEd

As president and chief operating officer, Donnelly is responsible for leading ComEd's overall performance in the areas of service reliability, operations, engineering, safety, customer satisfaction, financial management, smart grid development, and the implementation of microgrid and other advanced technologies.

Donnelly began his professional career at ComEd sister company PECO, Pennsylvania's largest electric and natural gas utility, in 1983. He has 35 years of experience in the energy industry.

He was promoted to president of ComEd in June 2018 and has served as COO since 2012. Donnelly also previously served as ComEd's executive vice president of operations, leading all energy delivery and transmission system operations. He has held several other executive positions covering a broad range of functions for ComEd and PECO.

ComEd, a unit of Chicago-based Exelon, is the largest electric distribution company in Illinois. The company employs over 6,000 people and delivers electricity to over 4 million residential and business customers across northern Illinois – 70 percent of the state's population – including the city of Chicago.

Dr. Sherif Abdelrazek, Senior Engineer, Distributed Energy Resources Group, Duke Energy

Dr. Abdelrazek currently works with Duke Energy's Distributed Energy Technologies group supporting grid penetration improvement of renewable energy resources including solar PV, energy storage, microgrid and combined heat & power (CHP) projects. From 2012 to 2015, he was a research assistant with the Power, Energy & Intelligent Systems Laboratory (PEISL) and the Duke Energy Smart Grid Laboratory at the Energy Production and Infrastructure Center (EPIC) in Charlotte, NC. His research interests include energy storage systems applications, PV systems design optimization, distribution systems stability, power electronics, distributed generation, microgrid design and distribution level renewables penetration enhancement. Dr. Abdelrazek currently holds two patents.

Dr. Abdelrazek's awards and honors include the Egyptian syndicate of engineers award in 2007, the degree of honor from Ain Shams University in 2010 and the Siemens Masters of Energy scholarship award in 2015. He received the B.S. degree in electrical power and machines engineering from Ain Shams University, Cairo, in 2010 and the M.S. and Ph.D. degrees in electrical engineering from the University of North Carolina, Charlotte, NC, in 2015.

Dr. Sonja Glavaski, Program Director, ARPA-E

Dr. Sonja Glavaski currently serves as a Program Director at the Advanced Research Projects Agency-Energy (ARPA-E). Her focus at ARPA-E includes data analytics, and distributed control and optimization in complex, cyber-physical, and networked systems with applications to control, monitoring, and security of energy systems.

During her 20-plus-year career, Glavaski has contributed significantly to technical advancements in numerous product areas, including propulsion systems, hybrid vehicles, energy efficient building HVAC/R systems, and aircraft systems. Prior to joining ARPA-E, Glavaski served as Control Systems Group Leader at United Technologies Research Center, where she made significant technical contributions to UTC’s world-class product portfolio, advancing new knowledge and technology in the area of control & intelligent systems. Glavaski has spearheaded the introduction and maturation of systematic and rigorous processes, as well as algorithms that maintain optimal performance at the system level while adapting to system and environment changes. She has also led the development and implementation of advanced diagnostics and control methodology and tools that are setting new standards across UTC and being adopted on multiple high-visibility programs. Her group specialized in advanced control & optimization; physics based & data driven modeling and diagnostics; and distributed system design.

Prior to being at UTRC, Glavaski led key programs at Eaton Innovation Center and Honeywell Labs. She received the Honeywell Aerospace Technical Achievement Award. Glavaski has leveraged her research expertise to provide significant leadership in professional societies. A Senior Member of IEEE, she served as the IEEE Control Systems Society Women in

Control Chair. Her research findings have appeared in more than 35 publications. Glavaski received her M.S. and Ph.D. in Electrical Engineering at the California Institute of Technology.

Mr. Will Agate Vice President, Microgrid Services, Ameresco

Mr. Will Agate currently serves as Vice President, Microgrid Services, Ameresco. Prior to joining Ameresco, Will founded NetZero Microgrid Solutions. Leading NetZero represents the culmination of Will's 25+ year career in energy management, economic and real estate development, and smart city sustainability and change management.

Immediately prior to forming NetZero, Will served as a Senior Vice President since 2010 with PIDC, Philadelphia's public-private economic development corporation, in charge of the nationally acclaimed Philadelphia Navy Yard. The Philadelphia Navy Yard is a dynamic and modern 1,200-acre business campus where Will led the effort to interject a progress energy plan into the overall sustainability effort, and to continue the explosive growth to its current success with more than 12,000 employees and 152 companies in over 7.5 million square feet of office, industrial, manufacturing, and research and development space occupied and in development, making it one of the most successful military base redevelopments in the country.

Most recently, Will completed a $33 million program to modernize The Navy Yard's electric distribution system into one of the country's largest and diverse microgrid communities with smart technologies enabling various on-site alternative energy and natural gas fueled generation and storage. Leading up to this project, Will oversaw the completion of the comprehensive Energy Master Plan in 2013.

NetZero and GE entered into an agreement in 2016 to collaborate concerning the opportunities that exist to take GE's smart city and microgrid products to a higher scale of market penetration based on the successful deployments to date.

In addition, Will has earned a national reputation as an avid proponent and focused leader for smart energy deployments and incorporating progressive sustainability practices as a core principle driving development. During this time, he has proven his skills as a collaborator who among other accomplishments is an author of a white paper commissioned by DOE in collaboration with the Chinese electric utilities that compares the two country's approach to microgrid development and in analyzing the cost and benefit metrics. He works closely with PJM, PECO and various state and city agencies interested in determining ways to deploy similar projects.

Panel Discussion: Moderator: Dr. John Caldwell, Director of Economics, Edison Electric Institute

Dr. John Caldwell has worked in the electric and gas utility industry for over twenty years, first at the Illinois Power Company (now part of Ameren) as a planning engineer, and then at NiSource, where he was involved in the development of long-term forecast models for energy use and peak demand, the introduction of innovative alternative rate designs, such as negotiated rate, fixed price, and fixed bill products, and the implementation of financial hedging strategies and risk management systems to support these products.

Both within NiSource and for its customers, John regularly gave seminars and training presentations on rate design and deregulation. He authored a monthly "Fuel Price Outlook" with commentary and projections on the energy industry on his company's website, and participated in periodic regional workshops to share his views on the market and future price trends. At EEI, Dr. Caldwell has been examining and reporting on the interrelationship of the economy with energy supply, demand, and pricing, and providing regular outlooks on the state of the economy and its current and potential impacts on the energy industry. He has delivered papers at industry conferences on natural gas supply and demand issues, the measurement of price and income elasticity in the electricity sector, and the proper methodology for estimating the costs and benefits of new smart grid technologies. Recently, he has been working with the Department of Energy and EEI members in the collaborative development of a process for projecting, measuring, and verifying costs and benefits associated with smart grid investments.

He holds a B.S. in electrical engineering from the University of Illinois at Champaign-Urbana, an MBA from the University of Illinois at Springfield, an M.S. in mathematics from the University of Iowa, and a Ph.D. in economics from the University of Illinois at Chicago.

Distinguished Academic:

Dr. Karl Rabago, Professor of Law and Executive Director, Pace Energy and Climate Center

Karl R. Rábago is the Executive Director of the Pace Energy and Climate Center, at the Pace Law School in White Plains, New York. His past positions include Commissioner, Texas Public Utility Commission; Deputy Assistant Secretary at the US Department of Energy; Vice President of Distributed Energy Services at Austin Energy; Director of Regulatory Affairs for the AES Corporation and AES Wind; and Managing Director & Principal of the Rocky Mountain Institute.

The PECC mission is to protect the earth's environment through solutions that transform the ways that society supplies and consumes energy. Karl has some 25 years experience in energy and climate policy markets. Karl serves as Chair of the Board of the Center for Resource Solutions, a San Francisco-based non-governmental organization that works to advance voluntary clean energy markets. He also sits on the Board of the Interstate Renewable Energy Council (IREC). Karl also is co-director and principal investigator for the Northeast Solar Energy Market Coalition, a US DOE SunShot Initiative Solar Market Pathways project.

A graduate of Texas A&M University with a Bachelor of Business Administration degree in Business Management, Karl is an attorney (University of Texas Law School, J.D. with Honors) with post-doctorate degrees in environmental (LL.M., Pace University School of Law) and military law (LL.M., US Army Judge Advocate General's School). A veteran of more than 12 years in the US Army, he served as an Armored Cavalry officer and member of the Judge Advocate General's Corps, and is Airborne and Ranger qualified.

Utility: Mr. Joseph Power, VP Legislative and Regulatory Affairs, Ameren

Joe has over 33 years of experience in the energy industry, both as a regulator and as a representative of industry. Before joining Ameren in July of 2005, Joe was the Vice President of Federal Regulatory Affairs at Reliant Energy, a Houston-based independent power producer and retail service provider. Prior to joining Reliant in 2001, Joe served at the Federal Energy Regulatory Commission for 16 years. While at the Commission, Joe served as an expert witness on the "litigation" side of the FERC house, and later served on FERC's "advisory" side for many years. Joe has a BA in Economics from George Mason University.

ASSOCIATION: Mr. Jim Horan, Director, Regulatory Affairs, National Rural Electric Cooperative Association (NRECA)

Jim Horan is the Regulatory Affairs Director for the National Rural Electric Cooperative Association (NRECA), a national association representing America's 900 plus distribution and generation and transmission cooperative utilities. Jim serves as regulatory counsel and is responsible for distribution utility issues including rate design, grid modernization, and business model development. Prior to joining NRECA, Jim served as Director of Government Affairs and General Counsel for the Minnesota Rural Electric Association. He also has experience managing energy efficiency programs, member services, government/regulatory affairs and communications for distribution cooperatives in the Pacific Northwest.

NARUC REPRESENTATIVE: Director of the Center for Partnerships & Innovation (formerly known as Domestic Grants or the Research Lab)

Danielle Sass Byrnett joined NARUC in December 2017. She is the Director of the Center for Partnerships & Innovation (formerly known as Domestic Grants or the Research Lab). She leads this grant-funded team focused on identifying emerging challenges and connecting State commissions with expertise and strategies to navigate complex decision-making. CPI builds relationships, develops resources, and delivers training in areas ranging from energy efficiency and distributed energy resources to natural gas infrastructure to cybersecurity and more. Danielle's subject matter expertise includes energy efficiency policies and programs, clean energy workforce development, residential clean energy financing, combined heat and power, State energy planning, and related topics.

Prior to joining NARUC, Danielle served in the federal government and consulting roles at the U.S. Department of Energy and U.S. Environmental Protection Agency. She holds a B.A. in biology and environmental studies from Swarthmore College, and an M.P.P. with an energy and environment concentration from Duke University.

Ms. Denise Foster, Vice President - State & Member Services, PJM Interconnection

Denise R. Foster, vice president– State and Member Services, is responsible for providing leadership to PJM's state regulatory and legislative activities, as well as managing member relationships through focused customer support, stakeholder process and meeting support, and training.

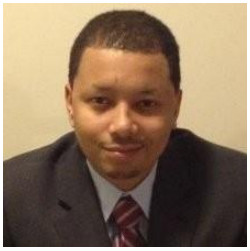
Ms. Foster also is on the Board of PJM Settlement, Inc., a non-profit corporation that provides billing payment and settlements functions, acts as a counterparty to market transactions, and provides credit management and other market settlements related services. Additionally, she is on the Board of PJM Environmental Information Systems Inc.

Prior to joining PJM, Ms. Foster was a director in the Exelon Generation government, legal & regulatory affairs department focusing on policy development. She supported state legislative efforts in Pennsylvania, Illinois, Maryland and Connecticut and the general advocacy of competitive markets and reasonable market design in the various market regions in which Exelon has a presence. Previously, Ms. Foster had been a regulatory manager with Exelon Power Team representing Exelon in markets-related committees and working groups in PJM and NEPOOL.

Prior to joining Exelon, Ms. Foster was a senior counsel in the law department at PJM. She represented PJM before state and federal regulatory agencies with a specific focus on matters involving the Mid-Atlantic state regulatory commissions and the interplay between the retail market and the wholesale market. Ms. Foster began her career in the energy industry as an assistant consumer advocate with the Pennsylvania Office of Consumer Advocate focusing on retail and wholesale electricity matters affecting Pennsylvania consumers.

Ms. Foster received a Bachelor of Arts in political science from Hood College in Frederick, Maryland and a juris doctor degree from The Dickinson School of Law of the Pennsylvania State University in Carlisle, Pennsylvania. She is on the Alumni Society Board of the Dickinson School of Law. She is admitted to the Bar of Pennsylvania and is a member of both the Pennsylvania Bar Association and the Energy Bar Association.

Mr. Andre Wellington, Distributed Generation Ombudsman / Manager, Consolidated Edison (confirmed)



Andre Wellington is a dynamic Engineer and Project Manager interested in bringing 15+ years of progressive experience in the energy field to an industry-leading organization.

At ConEd Andre serves as the utility's distributed generation ombudsman to represent the utility in matters related to distributed generation, photovoltaics, combined heat & power (CHP), battery storage, fuel cells, microgrids, and other DERs interconnecting to the utility's electrical system. Andre guides the utility's position on policies, procedures, rates and outreach associated with distributed generation and serves as ombudsman/mediator in addressing complaints associated with different DG technologies in interconnection or operation with the utility.

Utility Leadership Keynote:

Mr. Thomas Fanning, President, Chairman and CEO, Southern Company (confirmed)

Thomas A. (Tom) Fanning is chairman, president and chief executive officer of Southern Company, America's premier energy company. Elected by the board of directors in July 2010, he became president of Southern Company in August 2010, and assumed the additional responsibilities of chairman and CEO in December 2010. Fanning has worked for Southern Company for more than 35 years and has held 15 different positions in eight different business units, including numerous officer positions with a variety of Southern Company subsidiaries in the areas of finance, strategy, international business development and technology.

Most recently, Fanning served as chief operating officer, where he was responsible for Southern Company's generation and transmission, engineering and construction services, research and environmental affairs, system planning and competitive generation business units. He also was responsible for leading Southern Company's efforts on business strategy and served as a director of Southern Nuclear, Southern Company's nuclear plant operating company.

Fanning previously was the company's chief financial officer, where he was responsible for the accounting, finance, tax, investor relations, treasury and risk management functions. In this role, he served as the chief risk officer and had responsibility for corporate strategy. Prior to assuming the role of chief financial officer, Fanning was president and CEO of Gulf Power. Fanning serves on the board of directors of the Federal Reserve Bank of Atlanta, where he is the immediate past chairman, and serves as chair of the Conference of Chairs of the Federal Reserve Banks.

He also is the immediate past chairman of the Edison Electric Institute. He is on the advisory board of the Georgia Tech Scheller College of Business, the board of trustees of the Georgia Tech Foundation, the board of directors of the Institute of Nuclear Power Operations and the regional governing board of the World Association of Nuclear Operators' Atlanta Centre. Fanning also serves on the board of directors of Vulcan Materials Company and is a member of the Business Roundtable.

Fanning is co-chair of the Electricity Subsector Coordinating Council, which serves as the principal liaison between the federal government and the electric power sector to protect the electric grid from threats that could impact national security, including cyber and physical terrorism as well as natural disasters. He also is a member of the international advisory board of the Atlantic Council, which promotes constructive leadership and engagement in international affairs, and the American Energy Innovation Council, a group of America's leading business executives working to build broad bipartisan support for public and private investments in innovation.

Fanning earned bachelor's and master's degrees in industrial management and also was awarded an honorary Doctor of Philosophy degree from Georgia Tech. His executive education includes programs at the International Institute for Management Development in Lausanne, Switzerland, Harvard Business School and the University of Virginia Darden School of Business.

Military Panel: Moderator: COL(ret) Paul Roege, Vice President, Typhoon HIL, former Chief of Operational Energy Office, US Army

Ms. Marnie Bailey currently serves as Chief, Power Management Branch at CERDEC since May 2017 . Prior to her current position, Ms. Bailey served as CERDEC's Energy Informed Operations Project and Team Lead from 2012 – May 2017 and previously as an Electronics Engineer from Sep 2005 – Aug 2012.

In Ms. Bailey's role at CERDEC she is leading a team of engineers to design, build and test intelligent microgrid systems with a focus on interface and control standards development and as well as providing energy situational awareness to the commander and his support systems through user interface applications.

University of Maryland - Robert H. Smith School of Business, Masters in Business Administration; Pennsylvania State University - University Park, Masters in Electrical Engineering; University of Delaware, BS Field in Electrical Engineering

Col (ret) James Caley, Director, Operational Energy, U.S. Navy

Jim Caley was appointed as the Director for Operational Energy in September 2016. He serves as the Secretary of the Navy's focal point on all matters pertaining to Operational Energy.

Jim came from the United States Marine Corps where he served in the transportation, logistics, and communications fields since 1989, rising to the rank of Colonel. His final post was as Director of the Marine Corps Expeditionary Energy Office (E2O), where he was tasked with coordinating innovative energy technology and policy development for the Marines. During his time as Director, Jim refocused the Marine Corp's Expeditionary Energy Concepts initiative to focus on developing infantry-related technology in concert with private industry.

Jim is an experienced operational and strategic planner on issues relating to the Asia-Pacific, South Asia, and the Middle East. He has commanded at the Battalion and Regimental levels

Chris Evanich, Manager, Microgrids, S&C Electric Company

Chris Evanich is the Manager of Microgrid Business Development for S&C Electric Company. He focuses on the global business development of Microgrids using renewable energy, medium voltage switching, protection, battery energy storage and controls. He has over 14 years of experience in the Electrical Power industry and has a wide range of experience in Power Distribution, Renewable Energy and Smart Grid components and architecture. Chris has given over 50 industry presentations and has been published in over a dozen different publications worldwide.

He holds a Bachelor of Science in Electrical Engineering from Cleveland State University and an MBA from Case Western Reserve University. He is a 16-year member of the IEEE including participation as an IEEE PES Scholar Mentor and author of the IEEE P2030.7 Standard, "Standard for the Specification of Microgrid Controllers.

Fred McCue, MSgt (ret)

Mr. McCue is a native of Tampa, FL. He enlisted in the Marine Corps in 1985. Throughout his 23 year career he was trained as a Journeyman Electrician, Electrical Equipment Repair Specialist and Utilities Chief. He served in Engineer Support Battalions, Communication Battalions, Medical Battalions and deployed three times with the 22nd Marine Expeditionary Unit. Additionally, he was an instructor at the Marine Corps Engineer School, instructing students at the Basic, Journeyman, and Chief level.

Mr. McCue's final duty assignment in the Marine Corps was as the Acquisition Project Officer for Mobile Electric Power at the Marine Corps Systems command. Since leaving military service in 2008 Mr. McCue has worked as an analyst and Program Manager in the military power community. He currently is the Project Manager for the contractor support team for Program Manager Engineer Systems, Marine Corps Systems Command.

Mr. Robert Hughes, Executive Director, Office of Energy Assurance, U.S. Air Force (confirmed)

ROBERT B. HUGHES Mr. Robert B. Hughes, Executive Director, Air Force Office of Energy Assurance (OEA), Washington, D.C., leads the implementation of projects to meet today's top Air Force energy challenges and support mission-ready installations. OEA serves as the central management office dedicated to providing a comprehensive, enterprise-wide approach to energy projects, including the development and execution of strategic energy assurance initiatives.

Prior to his assignment with OEA, Mr. Hughes served as Director of the 6th Civil Engineer Squadron, 6th Air Mobility Wing, MacDill Air Force Base, Florida, where he oversaw the plans, programs, designs, construction, operation and maintenance of 600 base facilities.

Throughout his career, Mr. Hughes has held various engineering positions both within and outside of the Air Force. More specifically, he served as a Senior Consultant in the private sector and as a Design Engineer for the 82nd and 12th Civil Engineer Squadrons, the Military Construction and Operations & Maintenance Program Manager for the Air Force Materiel Command and the Air Education & Training Command and Housing Privatization Program Manager for Air Mobility Command.

EDUCATION 1989 Bachelor of Science in Mechanical Engineering, Rensselaer Polytechnic Institute, Troy, N.Y. 1999 Master of Business Administration in Finance, University of Texas, San Antonio, Texas 2008 Air War College, by correspondence

CAREER CHRONOLOGY June 1992–May 1994, Facility Project Program Manager, 12 CES/CEPD, Randolph Air Force Base, Texas May 1994–July 1996, General Engineer, HQ AFMC/CEPD, Wright-Patterson AFB, Ohio July 1996–July 1999, General Engineer, HQ AETC/CEPD, Randolph AFB, Texas August 1999–December 2003, Senior Consultant, BearingPoint, Inc., San Antonio, Texas January 2004–July 2005, Program Manager, HQ AMC/A7HO, Scott AFB, Ill. July 2005–June 2007, Deputy Base Civil Engineer, 6 CES/CD, MacDill AFB, Fla. June 2007–July 2016, Director, 6th Civil Engineer Squadron, 6 CES/CL, MacDill AFB, Fla. August 2016–Present, Director, US Air Force Office of Energy Assurance, Arlington, Va

Amber Kinetics: Dr. William Golove, Amber Kinetics (confirmed)

William Golove, PhD, vice president, business development, is responsible for Amber Kinetics' international sales and marketing. Throughout his distinguished career, Dr. Golove has been responsible for the development of $2B+ of clean energy projects in operation, under construction or in late-stage financing.

Before joining the team, Dr. Golove was chief development officer for Trianon Power. He negotiated the EPC and O&M-related agreements for a 158 MW wind farm in Senegal and the sale of two wind projects in Texas. Earlier, he served as executive director, project development, for Northland Power, Inc. In that role, he introduced the company to 100+ wind development projects. From 2010 until 2013, Bill was the chief development officer for Tri Global Energy; he built a project pipeline in excess of 5GW of which nearly 2GW has been monetized. While a scientist at Lawrence Berkeley National Laboratory, Dr. Golove led development of behind-the-meter energy projects.

Bill holds B.A., M.A., M.B.A., and Ph.D. degrees from the University of California at Berkeley. He is a two-time recipient of the U.S. Presidential Award for Leadership in Federal Energy Management. He has 40+ professional and academic publications and has given in excess of 100 professional talks. He serves on the non-profit board governing the University of California, College of Natural Resources Alumni Association.

Cadenza Innovations: Mr. Rick Chamberlain, Vice President of Engineering, Cadenza Innovation

With 20 years' experience developing technology and products for the lithium-ion battery industry, Rick understands how innovation gets designed and commercialized to meet customer and market demands. Rick has contributed to multiple worldwide patents, presented at numerous industry-leading conferences, led global R&D organizations, and supported building and qualifying a 300 MWh cell factory in China. Rick holds a B.Sc. in Chemistry from the College of William and Mary and a Ph. D in Physical Chemistry from the University of California, Berkeley**.**

Mr. Ron Ambrosio, Chair Emeritus of the Gridwise Architecture Council and co-founder and Chief Scientist at Utopus Insights (confirmed)

Ron Ambrosio is the founding Chief Scientist of Utopus Insights, responsible for industry liaison and the technical vision of the company. Prior to this position, Ron was an IBM Distinguished Engineer and Chief Technology Officer for IBM's Smarter Energy Research, overseeing the Energy and Utilities Industry technical activities in the company's research laboratories around the world.

Ron joined IBM in 1981 at the T. J. Watson Research Center, working in a variety of areas including embedded operating systems, distributed application frameworks, and pervasive computing environments, ultimately focusing on networked embedded computing with particular emphasis on what he coined "Internet-scale Control Systems" -- the interaction of control systems and sensor networks with enterprise systems and business processes. He helped establish IBM's activities in both Smart Grids and Smarter Planet. In 2000 Ron began working with the U.S. Department of Energy, NIST and FERC on future energy system requirements and architecture, interoperability, distributed energy resource management including transactive energy, and related policy and regulatory issues. He was selected by the Department of Energy to sit on the 13-member GridWise® Architecture Council beginning in 2004, serving as Chairman in 2009-2010, and as Chairman of the Smart Grid Interoperability Panel (SGIP) Architecture Committee for its first five years.

Ron is an internationally recognized visionary and leader in the smarter energy space, and is frequently asked to advise government initiatives, speak at conferences, or consult on projects. He was named by Greentech Media to their "Networked Grid 100: Movers and Shakers of the Smart Grid," and by Fierce Energy to their "15 Most Influential People in Energy."

Mr. Sam Hartnett, Senior Associate Rocky Mountain Institute / The Energy Web Foundation (confirmed)

Sam supports RMI’s electricity practice and Sunshine for Mines program by conducting market research, analyzing microgrid system performance, developing energy and financial models, performing life-cycle cost analysis for renewable energy resources, and synthesizing recommendations into clear and compelling presentations and written reports.

Prior to RMI, Sam spent four and a half years working at EnerNOC, an energy software and demand response provider, where he held various operations and product development roles in Boston, San Francisco, and Melbourne, Australia. His experiences included managing operations strategy for demand-side management programs across the Asia-Pacific region, developing tools and applications to automate business processes and decrease operational risk, and creating go-to-market strategies for energy management products. In addition to clean energy, Sam is passionate about outdoor education and he previously worked as a naturalist in Grand Teton National Park as well as the White River National Forest.

Roosevelt Strategic Council Onsite Members who will help facilitate questions and discussions with audience throughout the Summit. (Panels will have their own dedicated moderators.)

RSC Advisory Board Member: Colonel (ret) Paul Roege

Colonel (retired) Paul Roege retired from the U.S. Army in 2013 where he served as Chief, Army Operational Energy Office, Pentagon.

In this role, he organized and led a new Army headquarters organization to synchronize the emergent Operational Energy program, established to maximize operational capabilities and ensure global reach through energy. He defined a concept of "energy-informed operations" that integrates energy considerations throughout military systems, planning and operational control processes.

Paul has nearly 40 years of experience as an engineer and leader in engineering, construction, and research, primarily in the energy field. As a US Army engineer officer, Colonel Roege built military infrastructure and led combat engineering capabilities in Europe, Asia, Africa and Central America.

He planned and coordinated reconstruction of Iraqi oil production systems in 2003; later, he developed energy requirements and strategies for military operations, and was an early advocate within the Department of Defense for resilience as a guiding principle for community and national security. Paul also served as a Program Manager within Idaho National Lab and DARPA.

In his civilian career, he led engineering efforts associated with management and decommissioning of US nuclear weapons production facilities, and disposition of plutonium from US and former Soviet weapons programs.

Paul is a registered professional engineer and a West Point alumnus with graduate degrees from Boston University (MBA) and the Massachusetts Institute of Technology (SM and Nuclear Engineer).

Currently, he works with technology developers, communities, and national security leaders to build resilience with energy as a central focus. Paul leads strategic initiatives for Typhoon-HIL, Inc, a leading-edge power system modeling and simulation startup, and technology development for EthosGen, LLC, a heat harvesting innovator. He researches and publishes on energy and resilience topics, with more than 15 papers, articles and book chapters. Partnering with his wife, Colonel Roege is active in youth STEAM and leadership programs.

Roosevelt Strategic Council, Managing Partner, Monica Mckenzie

Managing Partner, Roosevelt Strategic Council. Senior Partner, Defense Strategies Institute (February 2011 – present). DSI is a premier non-partisan organization designed to assist in advancing the mission critical goals of the United States' Military and Government. Through our high level educational training summits and symposiums we are able to reach across all offices and departments in a fair and balanced manner. We bring together Senior Leaders and relevant representatives from the U.S. Military Services, DoD, Federal, Academia and Industry in our neutral forums in order to foster the necessary discussions and debates to help them achieve efficient and effective mission success. Our focus is two fold: Advancing the Mission. Supporting the Force.

Founder and Member of the Board of Directors, Insider Threat Alliance, Inc. (April 2017 – present) The Insider Threat Alliance (ITA), a 501c(3) nonprofit organization, was created to form a non-partisan forum dedicated solely to advancing the federal government and private sector's capabilities to prevent, detect and mitigate insider threats.

Former Head of Government Relations Global Strategies Group (now Sotera Defense Solutions) Global Strategies Group is a leading defense and national security organization providing innovative, mission-critical solutions to government clients in austere environments.

Former Research Analyst to Chairman 2nd Committee, United Nations

Master's Degree in International Politics and Conflict Negotiation, School of International Service- American University, Washington, D.C.. Certification in Political/Military Conflict Negotiation, Inter-American Defense College, Ft. McNair.