

SW Public Utility Regulatory Energy Storage Workshop Speakers

Dr. Carol L. J. Adkins

Director of Energy Technologies and System Solutions

Carol Adkins is the Director of Energy Technologies and System Solutions Center, and Director of the Renewable Systems and Energy Infrastructure Program Area at Sandia National Laboratories in Albuquerque, New Mexico. Previous management assignments include Director of Materials Science and Engineering; Deputy Director of the Nuclear Weapons Science and Technology Strategic Area (with responsibility for the major NNSA science and infrastructure funding at Sandia); Principal Program Director for the Defense Security Program, which included all physical and cyber security at Sandia and the National Counter Terrorism and Weapons Incident Response programs; and Deputy Director of the Advanced Manufacturing Science and Technology Center. Carol is a chemical engineer and has performed research in the areas of chemical vapor deposition of ceramics and tungsten, aerosol processing, cleaning with supercritical CO₂ and semiconductor wafer contamination and cleaning. She has a Bachelor of Science in Chemical Engineering from the University of New Mexico and a PhD in Chemical Engineering from the California Institute of Technology (Caltech). In the mid-1990s, Carol served as a program lead of the wafer cleaning project under the Sandia/SEMATECH CRADA and led a team of researchers investigating the extension of standard wet cleaning techniques to the next generation of particle removal. In 1995, she and her colleagues at Los Alamos National Laboratories were awarded the DOE Office of Industrial Technologies Commercialization Award for their Supercritical CO₂ cleaning work. Carol has served on the National Research Council's Board on Manufacturing and Engineering Design, and as a member of the Panel on Manufacturing Engineering, performing the assessment of NIST's Manufacturing Engineering Laboratory. She serves on the advisory boards for the University of New Mexico and University of Texas-Austin Chemical Engineering Departments. Carol is passionate about supporting women at Sandia.



Dr. Imre Gyuk, U.S. Department of Energy

After taking a B.S. from Fordham University, Dr. Gyuk did graduate work at Brown University on Superconductivity. Having received a Ph.D. in Theoretical Particle Physics from Purdue University he became a Research Associate at Syracuse. As an Assistant Professor he taught Physics, Civil Engineering, and Environmental Architecture at the University of Wisconsin. Dr. Gyuk became an Associate Professor in the Department of Physics at Kuwait University where he became interested in issues of sustainability.

Dr. Gyuk joined the Department of Energy to manage the Thermal and Physical Storage program. For the past decade he has directed the Electrical Energy Storage research program in the Office of Electricity which develops a wide portfolio of storage technologies for a broad spectrum of applications. As part of the program he also supervises the \$185M ARRA stimulus funding for Grid Scale Energy Storage Demonstrations. He is internationally recognized as an expert on storage technology.



Dr. Ray Byrne, Sandia National Laboratories

Dr. Byrne is a Distinguished Member of the Technical Staff at Sandia National Laboratories, where he has been employed since 1989. He holds a Ph.D. in electrical engineering, as well as a finance degree from the University of Chicago. He is team lead for the energy storage Equitable Regulatory Environment thrust area at Sandia.



Todd Olinsky-Paul, Project Director

As project director for Clean Energy States Alliance (CESA), Todd Olinsky-Paul directs the Energy Storage and Technology Advancement Partnership (ESTAP), a federal-state funding and information sharing project that aims to accelerate the deployment of electrical energy storage technologies in the United States, under contract with Sandia National Laboratories and with funding from US DOE-OE. Mr. Olinsky-Paul also works on critical infrastructure energy resiliency. His recent work has focused on energy storage demonstration project siting and development, state-level energy storage policy and programs, energy storage markets and valuation, renewable energy and grid interactions, financing and policy incentives, and emerging technologies. Mr. Olinsky-Paul has a Master of Science in Environmental Policy from Bard College and a Bachelor of Arts from Brown University.



Daniel R. Borneo

**Sandia National Laboratories
Distributed Energy/ Electrical Energy Storage**

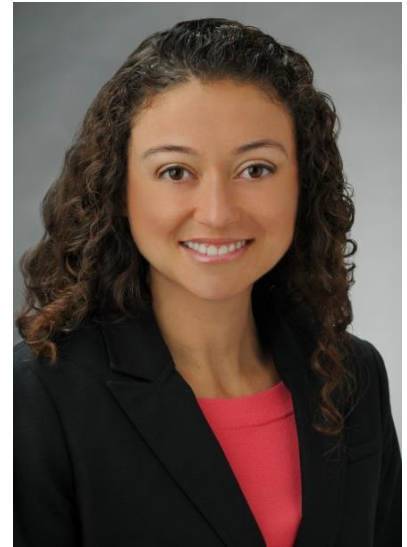
Mr. Borneo is a Professional Electrical Engineer and Principal Member of Technical Staff at Sandia National Laboratories (SNL). He holds both a BSEE and MSEE from the University of New Mexico (Albuquerque). He serves as the principal investigator and project leader for the Department of Energy/Office of Electricity (DOE/OE) Electrical Energy Storage Systems (ESS) Testing and Demonstration Program. His primary focus is collaborating with representatives of the energy storage industry, academia, and state energy groups to facilitate moving innovative electrical energy storage technologies and systems to commercialized products and services.



Veronica Rocha, Renewable Energy Branch Manager

Veronica is the Renewable Energy Program Manager for the Hawaii State Energy Office. The Renewable Energy branch is responsible for providing technical assistance and permitting facilitation programs and initiatives to industry, legislators and the public in order to advance the development of renewable energy projects in Hawaii. Under Veronica's leadership, the Renewable Energy branch has guided the Hawaii State Energy Office (HSEO) on key renewable energy strategies such as removing barriers to renewable energy penetration through policy development, regulatory interventions, stakeholder engagement and facilitation, and deployment of new programs and initiatives.

Veronica's professional experience includes business development, marketing, operations and engineering. Prior to working at the HSEO, Veronica was Latin America Regional Sales Manager for Sopogy, a Hawaii-based Micro-Concentrating Solar Power technology company. Her work in international sales was a great complement to her previous work in engineering and management for both start-up and Fortune 500 technology companies. Veronica Rocha holds two degrees from Stanford University, a Master in Business Administration (2008) and a Bachelor of Science in Mechanical Engineering (2001).



Rebecca O'Neil, Pacific Northwest National Laboratory

Rebecca O'Neil is a program manager for Pacific Northwest National Laboratory (PNNL). Her responsibilities include covering the Wind and Water Technologies portfolio, as well as lab initiatives related to regulatory development for energy storage. She joined PNNL in 2015, following five years at the Oregon Department of Energy, where she represented the agency on issues that included water power development, the renewable portfolio standard and environmental commodities, energy storage and regional integration. Before this work, Ms. O'Neil ran the multi-family energy efficiency program for a contractor of Energy Trust of Oregon and represented a coalition of river conservation and recreation organizations in federal hydropower dam licensing. She serves on the board of multiple renewable energy organizations.



Janice Lin, Strategen Consulting LLC

Janice brings more than two decades of experience in clean energy strategy, market development, and corporate strategy to Strategen. During this time she has advised a diverse range of clients including renewable energy equipment manufacturers and service providers, large corporations diversifying into clean energy, and real estate developers building sustainable communities.

In 2014 Janice co-founded the Global Energy Storage Alliance (GESA), an international non-profit organization, and currently serves on the Board of Directors and as Chair of the Executive Committee. Prior to that Janice co-founded the California Energy Storage Alliance (CESA) in 2009, and currently serves on the Board of Advisors for the Energy Policy Initiatives Center (EPIC) and the Energy Storage Committee of Joint Venture Silicon Valley. Janice is also a Member of the Advisory Council of the German American Chamber of Commerce, the UCSD Strategic Energy Initiatives Advisory Council, and Chair of the annual Energy Storage North America (ESNA) conference.

Prior to founding Strategen in 2005, Janice held several senior management positions with PowerLight Corporation (now SunPower Corporation), including Vice President of Product Strategy and Vice President of Business Development. During her tenure at PowerLight, Janice led initiatives in product and new market strategies, business development, regulatory affairs, strategic partnerships, investor relations, and customer finance.

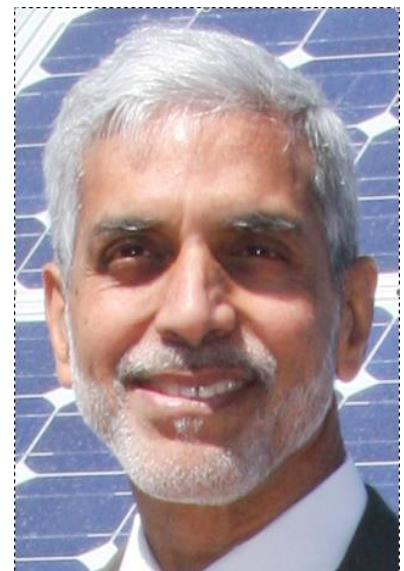
Janice holds an MBA from the Stanford Graduate School of Business, a BS from the Wharton School, University of Pennsylvania, and a BA in International Relations from the University of Pennsylvania's College of Arts and Sciences. She is the winner of ESA's 2013 Phil Symons Energy Storage Award, and NAATBATT's 2014 Market Development Award.



Abbas Akhil, Renewable Energy Ventures LLC

Abbas Akhil is the Principal Consultant at Renewable Energy Ventures, LLC, offering consultation services in energy storage, microgrids, and renewable energy. He retired from Sandia National Laboratories in 2011, after 23 years in the US DOE Energy Storage Program managed by Sandia Labs. He performed the early studies in 1992 to quantify the benefits of energy storage for electric utilities that lead to battery energy storage projects in several electric utility companies. While at Sandia Labs, he also co-developed the Energy Surety Microgrid concept for military bases that is now being prototyped in US military installations. He is the lead author of the 2013 Energy Storage Handbook published by DOE.

He worked at Public Service Company of New Mexico for 13 years prior to joining Sandia Labs and is a Registered Professional Engineer in New Mexico. He made Albuquerque his home for 42 years and is the proud owner of a Prius.



Jeremy Lewis
Bureau Chief, Program Development and Outreach
Energy Conservation and Management Division
New Mexico Energy, Minerals and Natural Resources
Department

Jeremy Lewis earned a B.S. degree in Natural Resource Studies from the University of Massachusetts and a Masters of Community and Regional Planning Degree from the University of New Mexico. His current role with the New Mexico Energy Office includes developing and managing programs in renewable energy, energy efficiency and alternative transportation. He chairs the New Mexico Renewable Energy Storage Working Group as well as the Albuquerque Public Schools' Water & Energy Conservation Committee. Jeremy has served as a Transmission Policy Analyst with Western Resource Advocates, as a Peace Corps Volunteer expanding sustainable agriculture in Central Africa, and as an AmeriCorps Volunteer enhancing positive youth development, literacy and conservation programs in Northern New Mexico.



For details on the New Mexico Energy Office visit www.CleanEnergyNM.org

Robert W. Cummings – NERC Senior Director of Engineering and Reliability Initiatives

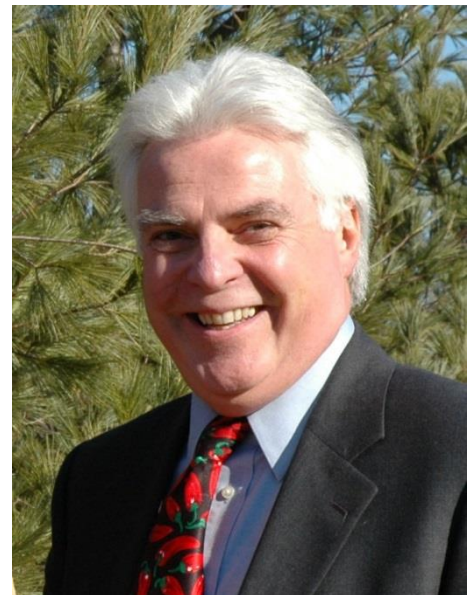
Mr. Cummings joined NERC in 1996 and has extensive experience in the industry in system planning, operations engineering, and wide area planning. He holds a Bachelor of Science Degree in Power System Engineering from Worcester Polytechnic Institute and is an IEEE Senior Member.

His geographically diverse experience includes Central Vermont Public Service Corporation in System Planning (generation and transmission), Public Service Company of New Mexico, and the East Central Area Reliability Coordination Agreement (ECAR).

Mr. Cummings was the “father” of power interchange transaction “tagging” and the Interchange Distribution Calculator, which shows loading contributions on key system transmission interfaces, or “flowgates,” for the Eastern Interconnection.

He was a principal investigator of the 2003 northeast blackout and the September 8, 2011 Pacific Southwest Disturbance, leading event analysis teams in the sequence of events development, modeling and studies (powerflow and dynamics analysis), and transmission/generation performance areas. He directed the NERC Event Analysis program for five years.

Mr. Cummings is the senior staff technical advisor for the NERC System Analysis and Modeling and the System Protection and Controls Subcommittees, and is the technical advocate in the North American Synchro-Phasor Initiative. He is also the technical director of the NERC System Protection Improvement Initiative, the Modeling Improvements Initiative, and the Frequency Response Initiative.



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