





Quadrennial Energy Review Second Installment

Electricity: Generation to End-Use Stakeholder Meeting #3: Salt Lake City, UT

> April 25, 2016 Western Electricity Coordinating Council 155 North 400 West

Host and Panelist Bios

Salt Lake City, UT

Dan Utech, Deputy Assistant to the President for Energy and Climate Change and White House Domestic Policy Council

Dan Utech is the Director for Energy and Climate Change at the White House Domestic Policy Council.

As one of the President's top White House advisors on energy and climate change, Mr. Utech coordinates policy development and implementation on these issues across the Administration. Mr. Utech joined the Administration in 2009, serving as a Senior Advisor to Secretary Chu until moving to the White House in May of 2010. For the last five years, he has been a key player in advancing many of the President's top energy and climate priorities, including new fuel economy standards, renewable fuels, reducing carbon pollution from power plants, and supporting clean energy deployment in the United States.

Prior to joining the Administration, Mr. Utech served for ten years in the Senate, where he worked on the Senate Environment and Public Works Committee and spent five years as Senator Clinton's top advisor on energy and environmental issues.

Mr. Utech grew up in upstate New York and is a graduate of Amherst College and Yale University.



resource center.

Joshua Cohen, Deputy Administrator, USDA Rural Utilities Service

Josh Cohen was appointed Deputy Administrator of USDA's Rural Utilities Service in October 2015. Before coming to USDA, he served for 14 years in state and local government, including as Chief Administrative Officer of the Maryland Department of General Services and as Mayor of Annapolis, Maryland. Before working in rural development he was in the criminal justice field, working as a Parole and Probation Agent, as a trainer for police and correctional officers, and as a grant director for a crime victims'

In his late teens Josh spent two summers working the fields of his grandparents' blueberry farm in rural Michigan. This time on the farm instilled in him a lifelong affection and respect for the caring, hardworking and down-to-earth people of rural America.

Josh earned a degree in Economics from the University of Maryland, and is pursuing a Master's in Public Administration from the University of Baltimore. He lives in Annapolis with his wife Lesley, an oncology research nurse, and their two daughters aged 11 and 7.



Melanie Kenderdine, Energy Counselor to the Secretary, US Department of Energy

Melanie A. Kenderdine joined the Department of Energy as Director of the Office of Energy Policy and Systems Analysis and Energy Counselor to the Secretary in May 2013. Prior to serving in her current role at DOE, Ms. Kenderdine worked as the Executive Director and Associate Director of the MIT Energy Initiative (MITEI). During her six-year tenure at MITEI, she managed a large staff, was a member of the research team for MIT's Future of Natural Gas Study, was the rapporteur and editor for the MITEI Symposium Series, and helped to raise over \$500 million from industry and private donors for energy research and education.

Before joining MITEI, Ms. Kenderdine served as the Vice President of Washington Operations for the Gas Technology Institute (GTI) from 2001 to 2007. At GTI, she was involved in major initiatives to increase domestic natural gas supply through research and development, enhanced energy efficiency through the use of full fuel cycle analysis, and advanced the security of critical energy infrastructures. From 1993 to 2001, Ms. Kenderdine served as a political appointee in President Bill Clinton's administration; she served in several key posts at DOE, including Senior Policy Advisor to the Secretary, Director of the Office of Policy, and Deputy Assistant Secretary for Congressional and Intergovernmental Affairs. Prior to joining DOE during the Clinton Administration, Ms. Kenderdine was Chief of Staff and Legislative Director for New Mexico Congressman Bill Richardson, who later was named U.S. Secretary of Energy.

Ms. Kenderdine has served on a Council on Foreign Relations Task Force to develop a national energy strategy, on the Consumers Energy Council of America Working Group on Distributed Energy, has published articles in the World Energy Forum magazine, co-authored a chapter in "Energy Security in the 21st Century: A New Foreign Policy Strategy," and is a frequent lecturer on energy issues. In July 2014, Ms. Kenderdine was named one of the top five women in Washington shaping energy policy by the National Journal.

Panel 1: Bulk Power Generation and Transmission: How Can We Plan, Build, and Operate the Appropriate Amount for Future Needs?



Jim Robb, Chief Executive Officer Western Electricity Coordinating Council (WECC)

Jim Robb, Chief Executive Officer, is responsible for strategic direction and oversight of all of WECC's activities. Mr. Robb joined WECC in 2014.

Most recently, Mr. Robb was Senior Vice President, Strategic Planning and Environmental Affairs with Northeast Utilities in Hartford, Connecticut. There, he spearheaded the development of the landmark Northern Pass transmission project, which will add 1,200 MW of HVDC transfer capacity between Quebec and New England.

Mr. Robb has more than 25 years of experience in the electric power sector as an engineer, consultant, and senior executive. During his career, he led the West Coast Energy and Natural Resource Practice at McKinsey & Company,

working closely with prominent electric power companies in California, Western Canada, the Pacific Northwest, and the Rocky Mountain States, as well as with some of the region's largest energy consumers.

Mr. Robb has a Master of Business Administration from the Wharton School of Business at the University of Pennsylvania, Philadelphia, Pennsylvania; and a Bachelor of Science in Chemical Engineering from Purdue University in Indiana—both degrees awarded with honors.



Ron Darnell, Executive Vice President for Public Policy, PNM Resources, Inc.

Ron Darnell is Senior Vice President for Public Policy for PNM Resources. He is responsible for regulatory and government affairs, corporate communications and marketing, and community relations and stakeholder engagement. Ron has been with the company since 2008.

Mr. Darnell joined PNM from Colorado's Xcel Energy, where he was Director of Regulatory Administration South in the company's Governmental and Regulatory Affairs Department. While at Xcel his responsibilities included management of cost allocation studies and the

design of rates and charges for various wholesale and retail utility services. He was also responsible for overseeing retail regulatory affairs for Public Service Company of Colorado including tariff and contract administration, franchise and service territory administration, and case management.

Mr. Darnell earned his Bachelor's degree in Business Administration, with an Emphasis in Accounting, from California State University.



Doug Hunter, Chief Executive Officer and General Manager, Utah Associated Municipal Power Systems (UAMPS)

Douglas Hunter is the Chief Executive Officer and General Manager of Utah Associated Municipal Power Systems ("UAMPS") and is a 35 year veteran of the electric utility industry.

Mr. Hunter has served as UAMPS' CEO/GM since 1995. UAMPS is a joint action agency that provides comprehensive electric energy services to 45 community-owned power systems throughout eight Intermountain West states including Utah, Arizona, California, Idaho, Nevada, New Mexico, Oregon and Wyoming. Mr. Hunter is the current Chair of the

American Public Power Association (APPA) and has served as a member of the APPA Executive Committee and Board of Directors. He holds degrees from the University of California-Davis and Utah State University.



industry.

Julia Souder Prochnik, Director of Western Renewable Grid Planning, Natural Resources Defense Council (NRDC)

Mrs. Julia Souder Prochnik is a trusted advisor to the energy and environmental sector. She is a native Californian and enjoys working to solve the impossible. She brings over 15 years of experience in strategy regarding renewable energy permitting and contracts, regional and state transmission planning, regulatory affairs, and negotiation services with the

Currently, she is the Director of Western Renewable Grid Planning at the Natural Resources Defense Council. She works on regional and inter-regional planning initiatives and advocates for incorporation of public policies and land use.

Founder of JASenergies, a strategic consultancy working to promote renewable energy integration into all walks of life, Mrs. Prochnik works for a broad range of clients including Natural Resources Defense Council. Currently, she is focused on the expansion of the Western Interconnection, market creation, and improving regional and inter-regional transmission planning. She is also heavily involved in regional coordination with the Western Electricity Coordinating Committee (past board director) and Peak Reliability (member advisory committee representative and data sharing task force member).

Mrs. Prochnik was the Project Developer Manager at Clean Line Energy Partners, where she managed the Centennial West Clean Line high-voltage direct current transmission line. She oversaw the local, state and federal permitting process, developed relationships with generators and load serving entities, coordinated public outreach efforts and negotiated agreements with contractors and project vendors.

As the Director of Intergovernmental Relations for the North American Electric Reliability Corporation (NERC), Mrs. Prochnik promoted effective coordination and positive relations between NERC and FERC, the U.S. Department of Energy (DOE), and many other federal and state entities. She worked with Congress and trade associations on cyber security and reliability standard legislation.

Previously, Mrs. Prochnik was the Western Regional Coordinator for the Office of Electricity and Energy Delivery. Principally, she was the DOE project manager for Section 368 of the 2005 Energy Policy Act, and worked closely with state and federal agencies on transmission siting and permitting. She was a Presidential Management Fellow, and began working at the DOE in 2002 in energy efficiency and then assisted with the 2003 blackout investigation.

Mrs. Prochnik earned her Bachelor of Arts, in Political Science and International Relations, from Oregon State University, and her Master of Public Administration from the University of Southern California.



Bryce Freeman, Administrator, Wyoming Office of the Consumer Advocate

Appointed in May of 2003, Bryce Freeman currently serves as Administrator of the Wyoming Office of Consumer Advocate. The OCA provides independent representation of utility customers in contested cases before the Wyoming Public Service Commission. Prior to being appointed to his current position, Mr. Freeman was on the staff of the Wyoming Public Service Commission for approximately nine years. Prior to his time at the Public Service

Commission, Mr. Freeman served as a Principal Appraiser in the utility valuation section of the Wyoming Department of Revenue and served as Assistant Deputy Treasurer in Laramie County.

Mr. Freeman has also been, and continues to be, heavily involved in regulatory and energy policy development on behalf of Wyoming consumers, including appointment to the Western Electric Coordinating Council's Transmission Expansion Policy Planning Committee and Scenario Planning Steering Group, as well as active participation in the Committee on Regional Electric Power Cooperation. Mr. Freeman also served as Secretary of the Wyoming Infrastructure Authority for ten years, with his most recent term ending in March of 2014. Mr. Freeman and his wife Pam make their home outside of Cheyenne and have three grown children.

Panel 2: Electricity Distribution and End-Use: How Do We Manage Challenges and Opportunities?

Paul Radakovich, Vice President, Transmission and Distribution Operations, Rocky Mountain Power

Paul Radakovich is Vice President, Transmission and Distribution Operations, Rocky Mountain Power at PacifiCorp. He was appointed to this position in March 2006, and is responsible for the operation, maintenance and construction of the transmission and distribution network including outage response and restoration in Wyoming, Utah, and Idaho service territories.

Paul has a bachelor's degree in electrical engineering from the University of Wyoming. He completed the Public Utility Executive Course at the University of Idaho and the Group Leadership Program at the Wharton School of Business, University of Pennsylvania. He is a registered professional engineer in the state of Wyoming and currently lives in Salt Lake City.

Leonard Gold, General Manager, Gila River Community Utility Authority

Leonard Gold is the General Manager of the Gila River Indian Community Utility Authority (GRICUA) and Power Consultant to Ak-Chin Energy Services (ACES). Mr. Gold has over 44 years of utility/consulting experience negotiating utility operations and maintenance, power supply and service agreements, addressed scheduling and dispatching, metering, reserve requirements, energy banking, future power requirements and rate structures. As GRICUA's General Manager, he oversees a staff of 24 employees including 2 line crews.

Mr. Gold holds a B.S., in Electrical Engineering, from Northeastern University, and an M.S., in Engineering Science, from Rensselaer Polytechnic Institute.

Roger Woodworth, Vice President, Avista Corp., and President, Avista Development

At Avista Development, a non-utility subsidiary of Avista Corp., Roger Woodworth seeks to profitably invest retained earnings in local real estate, businesses and other assets that: strategically leverage the strengths of local and regional partnerships; enhance the economic vitality of Avista's utility service areas; and further Avista's commitment to deliver shared value to those we serve.

He is active in various business and civic organizations including gubernatorial appointed trustee to the Washington State Life Sciences Discovery Fund, member and past-chair of the President's Advisory Council for Washington State University-Spokane, board member of Plum Energy, LLC, and vice-chair of the Ignite Northwest foundation board.

Since the start of his career at Avista in 1979, Mr. Woodworth has served in various leadership roles including Strategic Counsel, Corporate Development Officer, Vice President of Operations, Vice President for Sustainable Energy, Vice President of Customer Solutions, and Vice President and Chief Strategy Officer.

He has previously served as gubernatorial appointed chair of the Washington Economic Development Commission, chair of the Northwest Energy Efficiency Alliance, chair of Edison Electric Institute's retail services executive advisory committee, inaugural member of Rocky Mountain Institute's "Electricity Lab" initiative,

participant in the American Academy of Arts and Sciences forum on behavioral sciences in energy policy, gubernatorial appointee to the Washington State Clean Energy Leadership Council, founding Vice Chair of the Spokane Health Services and Science Advisory Board, Chair of the Northwest Gas Association board, President of the National Hydropower Association board, and Chair of the Inland Northwest Community Foundation.

Mr. Woodworth earned his Bachelor of Science degree in wildlife ecology from Washington State University and is a graduate of Columbia University's Senior Executive Program.



Colin Jack, Chief Operating Officer and Engineering Manager, Dixie Power

Colin W. Jack, P.E., is a licensed professional engineer with nearly 30 years of experience in the modeling, analysis, planning, design, construction, and operation of electrical power systems, both as a consultant and as a member of utility staff. Mr. Jack has a B.S. in Electrical and Computer Engineering from Brigham Young University. For ten years he worked overseas for NRECA International, providing services on a multitude of

international projects in 26 different countries. Currently Mr. Jack works as Chief Operating Officer and Engineering Manager at Dixie Power, in southwestern Utah and northwestern Arizona.



Mark Case, Principal and President, ETC Group

Mark Case, P.E. is president of ETC Group, LLC, an international engineering firm dedicated to improving energy efficiency in commercial and industrial facilities. Mr. Case has 31 years of experience with analysis and optimization of chiller plants, boilers, lighting, building, HVAC systems, motors, envelope and fenestration systems, process cooling, refrigeration, compressed air and hydraulic systems, solar domestic hot water systems.

He is leading ETC's efforts in developing data driven efficiency, leveraging advances in IT hardware and software, networking, data science and the internet of things (IoT).

His public service includes invited contributions to energy policy making through Utah's Public Service Commission Demand Side Management Task Force, the Governor's Energy Policy Advisory Council and the Utah Legislature's Energy Policy Task force and numerous ASHRAE technical committees.



Laura Nelson, Ph.D., Executive Director, Utah Office of Energy Development

Dr. Laura Nelson was appointed by the Governor's Energy Advisor to be the Director of the Utah Office of Energy Development in 2014. Prior to her appointment, Dr. Nelson served as the Vice President of Government and Regulatory Affairs for Potash Ridge, Corp., the Vice President of Energy and Environmental Development at Red Leaf Resources, and as the Energy Advisor to Utah Governor Jon M. Huntsman. She also served as the Energy Policy Advisor to the Idaho Public Utilities Commission and a Technical Consultant to the Utah Division of Public Utilities.

Dr. Nelson's past board and committee appointments include serving as the Utah representative to the Western Renewable Energy Generation Information System, board member of the Southwest Energy Efficiency Project, board member of the Utah Museum of Contemporary Art, the Idaho representative to the Western Interstate

Energy Board, the Utah representative on the Federal Unconventional Resources Task Force, and the Chair of the Salt Lake Chamber Energy and Minerals Task Force.

Dr. Nelson has been proactive in defining and supporting balanced and sustainable energy solutions, including providing Congressional testimony, participating in regional collaborations, working with counties and cities, and coordinating across diverse stakeholders. She has over 20 years of experience working on energy and natural resource issues in both the public and private sectors. She has a solid track record of working collaboratively to deliver positive policy, regulatory, and commercial results.

Dr. Nelson holds a Ph.D. in Economics from the University of Utah and resides with her family in Salt Lake City. She enjoys running, skiing, and art. Through her involvement with the Salt Lake City Junior League, she is actively engaged in supporting community initiatives to enhance the welfare of low income families.

Panel 3: Cyber- and Physical Security and Resilience

Mark Gabriel, Administrator and Chief Executive Officer, Western Area Power Administration (WAPA)

Mark A. Gabriel is Administrator and CEO of the Western Area Power Administration. In this role, Gabriel manages the nonprofit federal agency, which markets and delivers low-cost Federal hydropower from 56 hydroelectric plants to nearly 700 wholesale customers across 15 states. Western's footprint spans 1.3 million square miles as one of four Power Marketing Administrations in the U.S. Department of Energy.

Mr. Gabriel brings a wealth of electric utility industry experience. Career highlights include executive roles at Black and Veatch Management Consulting, which develops energy solutions in the areas of electricity, water, oil and gas, and cyber security; and the Electric Power Research Institute where he served as acting president for EPRI Traditional and Client Relations, and as the Global Marketing Officer. While at EPRI, he led the nationwide collaborative effort known as the Electricity Sector Framework for the Future.

In other roles, he was CEO and President of the energy management consulting firm Power Pundits LLC; overseeing the expansion of Halcrow -- a 158-year-old British firm -- into its North American energy practice; Senior Vice President for Energy for the national engineering-based consulting firm R.W. Beck, and CEO of Positive Energy Directions.

Mr. Gabriel is a popular speaker and award-winning author. His book, Visions for a Sustainable Energy Future, won the 2009 Indie Excellence Book Award for environmental writing. He holds a Bachelor of Arts in Political Science from Fordham University in New York and completed the coursework for a Master of Science in Administration and Management from St. Michael's College in Burlington, Vt.



Michael Ball, Director, Corporate Security & Business Continuity, PacifiCorp

Michael Ball serves as the Director of Corporate Security and Risk supporting Berkshire Hathaway Energy's family of businesses, which comprises operating units in 11 states and three countries (Canada, Philippines, and the United Kingdom). From his headquarters in PacifiCorp's offices in Portland, Oregon, Mr. Ball leads a team of cybersecurity professionals focused on development and implementation of strategic global cybersecurity policies and practices. The organization is responsible for the enterprise security monitoring, alerting and incident response activities that support its cyber and

operational resilience. In this roll, Mr. Ball frequently works with external stakeholders and industry partners to share best practices and promote advancement of industry cybersecurity capabilities.

During Mr. Ball's 17 years with the business, he has also led the companywide risk management program in addition to PacifiCorp's physical security and business continuity teams.

Prior to joining PacifiCorp, Mr. Ball worked in the banking industry as Assistant Vice President of Support Services at U.S. Bancorp's affinity credit card operations division.



Michael Moon, Vice President, Entity Oversight, Western Electricity Coordinating Council

Michael Moon became Vice President, Entity Oversight on December 1, 2014, and is responsible for providing oversight and direction on all aspects of WECC's Compliance Monitoring and Enforcement Program.

Most recently, Mr. Moon was Senior Director, Regional Entity Coordination with the North American Electric Reliability Corporation (NERC) in Atlanta, Georgia. There he was responsible for enhancing regional entity relationships for the Electric Reliability

Organization and implementing the ERO Enterprise Model action items to improve communication and collaboration between NERC and the eight regional companies with Delegation Agreements with NERC.

Mr. Moon has more than 31 years of experience in the compliance and electric sectors, including 26 active years of service in the United States Army, having retired as a Colonel in 2009.

Mr. Moon has a Master's Degree in National Security Studies from the Army War College in Carlisle Barracks, Pennsylvania, and a Bachelor's Degree in Applied Mathematics from Longwood University in Farmville, Virginia.



Tim Roxey, Vice President and Chief E-ISAC Operations Officer, North American Electric Reliability Corporation (NERC)

Tim Roxey is responsible for development and execution of key critical infrastructure protection initiatives, such as NERC's Cybersecurity Risk Information Sharing Program (CRISP). He also acts as a key coordination point for North American government officials and is a NERC Vice President and Chief ES-ISAC Operations officer.

Mr. Roxey has 30 years of experience in the nuclear utility industry serving in organizations such as Operations, Information Technology, Licensing, and Security, among others. He has

over 45 years of computer related experience working in environments from mainframes, minis and micros to hand wired special control systems. He has written numerous programs in many different languages.

Mr. Roxey is a widely recognized leader in the fields of security and infrastructure protection, formerly serving as Deputy Chair of the Nuclear Sector Coordinating Council and Chairman of its Cyber Security Sub-Council. He is the past Private Sector Chairman of the Industrial Controls System Joint Working Group (ICSJWG) (7 years) and the Co-Chair of the Cross-Sector Cyber Security Working Group (CSCSWG).

Mr. Roxey spent over 17 years with Constellation Energy. At Constellation he was the Technical Assistant to the Vice Chairman for security related matters and was involved in a variety of physical and cyber security issues across the entire nuclear sector of the United States. In the realm of physical security Mr. Roxey was involved in reviewing security system architectures for the next generation of nuclear power in America as a member of various oversight committees. He also served, by invitation, on two Presidential Commissions helping to prepare guidance for the next administration.

Mr. Roxey led a global group to develop mitigation strategies around STUXNET with an eye towards its possible redeployment as a weapon against other platforms. Working with the National Labs, he helped develop substation reviews/modifications to protect utility generation from being exploited. As the Chief Operation Officer of the E-ISAC, he is responsible for taking actions to protect the North American grid from both Cyber and Physical means.



Phil Jones, Commissioner, Washington Utilities and Transportation Commission

Appointed by Governor Chris Gregoire in March 2005 and confirmed unanimously by the State Senate. Commissioner Jones is a member of the International Relations and Telecommunications Committee of the National Association of Regulatory Utility Commissioners (NARUC). On the Telecommunications Committee, he has served on several policy panels and currently leads its Federal Legislation Subcommittee. He is Chairman of the Board of Directors of the National Regulatory Research Institute (NRRI). He is Vice Chair of the Washington Action Committee. He also currently serves on the Executive Committee of NARUC, which manages its daily operations for the Board of Directors. Prior to his

commission appointment, he served as managing director of Cutter & Buck (Europe), BV in Amsterdam, the Netherlands for five years.

From 1983 – 1988 he served as Senior Legislative Assistant to Senator Daniel J. Evans, the former U.S. Senator from Washington State, and staffed him on energy policy issues before the Senate Energy and Natural Resources Committee, as well as international trade policy. He was responsible for a broad range of energy issues, including hydroelectric re-licensing, nuclear waste management, energy conservation and renewables, and the Bonneville Power Administration.

Commissioner Jones is a native of Spokane, Washington. He graduated from Harvard College with honors with a degree in East Asian Studies in 1977.