

## **Grid Security and Modernization: Hardening the Midwestern Grid**

### **Speaker Biographies**

#### **David Boyd, MISO**

David Boyd, Vice President of Government and Regulatory Affairs, serves as MISO's primary liaison with the governors and state regulatory and legislative policymakers in the MISO region. In addition, he monitors and integrates the activities of federal regulators and legislators into MISO's overall policies.

Dr. Boyd served as a member of the Minnesota Public Utilities Commission from 2007 until joining MISO in 2015, including three years served as chair. Dr. Boyd also served in a variety of domestic and international leadership positions during this time, including the National Association of Regulatory Utility Commissioners (NARUC) Board of Directors and chair of NARUC's Committee on Electricity. Prior to serving as a commissioner, David was a member of the faculty of the University of St. Thomas' chemistry department for 20 years.

Dr. Boyd received a bachelor's degree with majors in chemistry and biology from St. Olaf College, and a Ph.D. degree in chemistry from the University of Minnesota.

#### **Tom Finco, American Transmission Company**

Tom Finco is vice president, External Affairs, for American Transmission Co., responsible for Customer Relations, State and Federal Government Affairs, Interconnection Services, Real Estate, Local Relations and Environmental.

He began his career with ATC as manager of Real Estate upon the company's formation in 2001. He was promoted to director, Real Estate in 2005, tasked with overseeing the Real Estate, Facilities and Physical Security department.

Prior to joining ATC, he spent 11 years at Alliant Energy in various Real Estate leadership positions. Finco earned a bachelor's degree in geography (cartographic emphasis) from the University of Wisconsin – Stevens Point, and a master's degree in business administration from the University of Wisconsin – Madison.

He is a licensed real estate broker in Wisconsin and a licensed professional land surveyor in Wisconsin and Iowa.

#### **Tom Vitez, ITC Holdings Corp.**

Vitez brings more than 31 years of experience in electricity engineering and planning. As vice president of planning, Vitez heads ITC's planning organization where he is responsible for overall system planning for ITC and its subsidiaries that provide transmission services in Michigan, Iowa, Minnesota, Kansas, Oklahoma and touch Illinois and Missouri.

Vitez formerly served as director of reliability planning for ITC subsidiaries *ITC Transmission* and Michigan Electric Transmission Company, LLC (METC) after joining ITC in 2003 as principal engineer on transmission projects.

Prior to joining ITC, Vitez held a variety of positions in the utility industry beginning in 1981 with Cleveland Electric Illuminating Company, now a subsidiary of FirstEnergy. Vitez joined Detroit Edison in 1992. Throughout his career, Vitez has been responsible for residential development of distribution systems, demand side management options, transmission planning and reliability planning.

Vitez sits on the Midwest Reliability Organization's Board of Directors and is chair of that Board's Governance and Personnel Committee. Throughout his career, Vitez has served on a variety of industry working groups and panels and is past chairman of the East Central Area Reliability Council's (ECAR) Future System Study Group as well as the ECAR Transmission System Performance Panel Working Group. Vitez also served on ECAR's Transmission System Performance Panel and the North American Electric Reliability Council's (NERC) Distribution Factors Task Force and is past chair of the Midwest Independent System operator (Midwest ISO) Expansion Planning Group. Vitez was also on Michigan's Wind Energy Resources Board in 2008 and had previously participated in Michigan's Capacity Needs Forum and 21st Century Energy Plan.

Vitez earned a bachelor's degree in electrical engineering from the University of Cincinnati and a master of business administration degree from the University of Michigan.

#### **Kyle Meidermire, Xcel Energy**

Kyle Neidermire is a Manager of Regional Transmission Initiatives at Xcel Energy, responsible for the strategic leadership and support of long-term transmission initiatives and policy in the Midwest. He represents Xcel Energy in transmission policy issues and provides guidance and oversight for the development and execution of critical transmission projects. This includes the development of necessary agreements in structured partnerships, as well as associated communications and public relations.

As a leader with public policy and regulatory understanding, Neidermire has a proven track record of large project success through collaboration utilizing strong relationship skills. He has over thirteen years' experience in various roles focusing on strategic initiatives, public policy, project management, field operations, and safety and training. He is a member of all CapX2020 Project Management Committees representing Xcel Energy's interests in the group of projects, which consists of over \$2 Billion in capital investment, and oversees the partnership with other investors on the development of cost allocated MISO Multi – Value Projects and Market Efficiency Projects.

Neidermire has a B.S. in Construction from University of Wisconsin – Stout. He is currently pursuing his Executive MBA from the University of St. Thomas in Minneapolis, MN.

### **Commissioner Ellen Nowak, Wisconsin Public Service Commission**

Ellen Nowak was first appointed to the Wisconsin Public Service Commission in July 2011 by Governor Scott Walker. She was reconfirmed for a new, six-year term beginning on March 1, 2013. Commissioner Nowak was named Chairperson of the Public Service Commission of Wisconsin in March of 2015.

As Second Vice President, she serves on the Executive Committee and the Board of Directors for the National Association of Regulatory Utility Commissioners (NARUC). Her duties at NARUC also include serving on the Committee on Energy Resources and the Environment and the Task Force on Environmental Regulation and Generation. Commissioner Nowak also serves on the Advisory Council to the Board of Directors for the Electric Power Research Institute, the Advisory Council for the Center for Public Utilities and the Advisory Committee for the Critical Consumers Issues Forum.

Prior to her appointment, she served as the chief of staff to Waukesha County Executive, Dan Vrakas. From 2002-2006, she served as legal counsel and subsequent chief of staff to the Speaker of the Wisconsin Assembly. She also later worked as the deputy director of School Choice Wisconsin. From 1998-2002, Ellen practiced business litigation at Mallery & Zimmerman S.C. in Milwaukee.

Ellen has a law degree from Marquette University and a Bachelor of Science from the University of Wisconsin–Milwaukee.

### **Commissioner John Tuma, Minnesota Public Utilities Commission**

John Tuma was appointed Commissioner to the Minnesota Public Utilities Commission effective February 2, 2015. He is currently working as lead Commissioner on cybersecurity issues for the Commission. At the Commission he has also taken leadership roles on energy storage, power facility siting rules and wind repowering. Commissioner Tuma is a member of the National Association of Regulatory Utility Commissioners (NARUC). He serves on the NARUC Committee on Critical Infrastructure and the NARUC subcommittee on Nuclear Issues-Waste Disposal.

He served as a Republican in the Minnesota House of Representatives from 1995 to 2002. He was Chair of the Crime Prevention Committee and Vice Chair of the Local Government Committee. After his service in the Legislature, Tuma had his own public relations firm representing public safety and conservation organizations until his appointment to the commission in 2015. Commissioner Tuma lives and practices law in Northfield, MN. He is married to Wendy Tuma and has two adult children. He earned his B.A. from Minnesota State - Mankato, and his J.D. from the University of Minnesota Law School.

### **Commissioner Nick Wagner, Iowa Utilities Board**

Nick Wagner officially began serving as a member of the Iowa Utilities Board on May 24, 2013, appointed by Governor Terry Branstad to fill a term ending on April 30, 2019.

Board member Wagner is a member of Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC). Wagner also serves on the NARUC Committee on Gas, is co-chair of the Washington Action Program, and is co-vice chair of the Committee on Critical Infrastructure. Wagner also serves as vice president of the Mid-America Regulatory Conference (MARC) and treasurer of the National Council on Electric Policy (NCEP).

Prior to joining the Board, Wagner was the Director of Quality Management for the ESCO Group in Marion, Iowa. His professional and management duties at ESCO Group included project execution in industrial automation including standby and emergency diesel generator control, facility energy and efficiency audits, and building control.

Wagner served in the Iowa House of Representatives from 2008 to 2012 as ranking member and chair of the Local Government Committee and as vice chair of the Appropriations Committee. Wagner also sat on the Administration and Regulation Budget Sub-Committee, Commerce, Transportation, and Ways and Means Committees.

Wagner previously served four years as an at-large elected member of the Marion City Council.

Wagner received his Bachelor of Science degree in biomedical engineering in 1996 and a Master's of Science degree in electrical engineering in 1998, both from the University of Iowa. He and his wife, Mandie, reside in Marion and have a daughter and son.

### **Ann McCabe, The Climate Registry**

Ann McCabe is a consultant and interim executive director of The Climate Registry, which helps companies, state agencies, universities and others measure, report and verify their greenhouse gas emissions. During her recent five-year term as an Illinois public utility commissioner, Ann focused on smart grid implementation, regional transmission, cyber security and nuclear issues. She was president of the MidAmerica Regulatory Conference and the Organization of PJM States, Inc. boards and chaired the National Association of Regulatory Utility Commissioners' Nuclear Issues Subcommittee. Earlier, Ann consulted to industry, trade associations, and nonprofits; managed environmental regulatory issues for BP and Amoco; and served in the Illinois Washington DC office.

Ann has a master's in public policy from University of Chicago and a bachelor's in political science from Williams College. She is a regular speaker on grid modernization, energy efficiency, and nuclear power.

### **Brian Amundson, Xcel Energy**

Brian Amundson received his Bachelor's degree in Electrical Engineering from Iowa State University in 1981 and began working for Northern States Power (now Xcel Energy). His 36 years of experience includes electric transmission and distribution planning, asset management, budgeting, design & engineering including protection, communications, interconnections, system operations, and natural gas storage and operations.

As Director, Grid Modernization, Brian is responsible for delivering Xcel Energy's Advanced Grid initiative, a set of enabling technologies to modernize the electric distribution system serving nearly 3.5 million customers across 8 states. He has participated in policy efforts such as Minnesota's e21 Initiative and the Minnesota PUC's Stakeholder meetings where he has provided insights into the challenges utilities face as together we strive to modernize our systems.

Brian is a member of the Institute of Electrical and Electronics Engineers, National and Wisconsin Society of Professional Engineers, and is a Professional Engineer registered in Minnesota, Wisconsin, Michigan and North and South Dakota.

### **Gordon Pietsch, Great River Energy**

Gordon Pietsch has more than 30 years of working in various capacities in electric transmission and has experienced the evolution of the industry. As director of transmission planning & operations at Great River Energy, he is currently responsible for the oversight of regional and load-serving transmission planning efforts, operations of Great River Energy's transmission system and transmission asset management. Prior to joining Great River Energy in late 2001, Gordon was the director of technical services for MAPPOR, the service organization of the Mid-Continent Area Power Pool (MAPP). He spent 19 years with MAPP working on many of the organization's procedures for safeguarding the region's electric grid. Gordon holds a Bachelor of Science degree in electrical engineering from the University of Minnesota.

### **Matt Prorok, Great Plains Institute**

Matt Prorok joined Great Plains Institute in November 2015 as a Policy Associate. His work focuses on the development of electric transmission infrastructure and markets to enhance renewable energy development. Matt engages with stakeholders at the Midcontinent Independent System Operation (MISO) to improve planning processes and market opportunities for renewables, demand response, distributed generation, and energy storage technologies. He also serves on the steering committee of the Minnesota Energy Storage Alliance. Matt has a background in engineering and sustainability. He obtained his B.S. in Mechanical Engineering from Penn State with a minor in Earth Systems. More recently, he received an M.S. in Science, Technology, and Environmental Policy from the University of Minnesota's Humphrey School of Public Affairs. His work at the University of Minnesota focused on greenhouse gas emissions attributable to electric vehicles in Minnesota.

### **Greg Engle, Wisconsin Emergency Management**

Greg Engle has served as the Director of Planning and Preparedness for Wisconsin Emergency Management since 2012. In his role, Greg oversees state emergency response planning, training, and exercises. Greg is also responsible for the State Emergency Operations Center, recently helping to design and build a new facility, roll out new statewide information management software, and establish a business EOC to engage private sector partners. Prior to his current position, Greg oversaw state homeland security programs for nine years, which included the development of a statewide emergency communications system. Greg also serves as an adjunct professor in emergency management at the University of Wisconsin-Green Bay.

### **Joe McElroy, Michigan Electric Cooperative Association**

Joe McElroy is the Director of Safety for the Michigan Electric Cooperative Association (MECA), where he oversees the successful implementation of safety programs for Michigan's nine electric cooperatives and 18 municipalities. Starting as an apprentice lineman in 1987, his background spans 30 years of experience in the utility industry, including fiber communications, natural gas distribution and electric distribution. Before assuming his job at MECA in 2006, he worked as a journeyman lineman. In his current role, he conducts formal training for linemen on safety regulations, protocols and procedures. In large outage situations, he spearheads mutual aid cooperation among 50 municipal and cooperative electric providers in Michigan. Certified in CPR/First Aid with the American Red Cross & National Safety Council, he is the Area Administrator for Rural Electric Safety Achievement Program (RESAP) and a proud member of Quad States Safety Instructions, SAIA and NUTSEA.

### **Julie Voeck, NextEra Energy Resources**

Julie Voeck is Senior Director Legislative and Regulatory Affairs at NextEra Energy Resources. In this role Julie is responsible for directing state regulatory and legislative affairs in the Midwest. She is also responsible for directing MISO operational, marketing and policy issues that impact NextEra assets in the MISO footprint. NextEra's Midwest assets include a variety of electric generation including wind, solar, battery and nuclear facilities.

Prior to joining NextEra, Julie held positions where she was responsible for transmission pricing and policy at MISO. Her experience also includes regulatory policy impacting electric generation, market design and transmission policy at the state and federal level. Julie's experience also includes power plant engineering, generation planning, energy marketing, cogeneration services and retail marketing positions.

Julie holds a bachelor's degree in mechanical engineering from the University of Wisconsin – Madison and a master's degree in business administration from the University of Wisconsin – Milwaukee.

### **Allison Silverstein, Independent Consultant**

Allison Silverstein is a consultant, strategist and writer on electric transmission and reliability, energy efficiency, smart grid, renewable energy and technology adoption issues. She serves as project manager for the North American Synchrophasor Initiative (a collaboration between U.S. Department of Energy and the electric industry) and advises private and governmental clients on advanced technology, regulatory and other issues. Notable recent work includes organizing and writing DOE's August 2017 "Staff Report on Grid Reliability and Markets", and leading the independent expert panel whose report led to transformation of Bonneville Power Administration's transmission planning process. She has contributed to the Hawaii Clean Energy Initiative framework and renewables and reliability integration.

Silverstein served as Senior Energy Policy Advisor to Chairman Pat Wood, III, at the Federal Energy Regulatory Commission from July 2001 through July 2004, co-chairing the Electric Systems Investigation for the U.S.-Canada Joint Power System Outage Task Force and writing the reports on the 2003 Northeast blackout. She has also worked at the Public Utility Commission of Texas, Pacific Gas & Electric Co., ICF Inc., the Environmental Law Institute, and the U.S. Department of Interior. Silverstein serves on the Board of the American Council for an Energy Efficient Economy and the Board of the Health Alliance for Austin Musicians. She is a member emeritus of the National Academy of Sciences Board on Energy & Environmental Systems and the GridWise Architecture Council. She lives with her family near Austin, Texas.

#### **Cliff Haefke, U.S. DOE Midwest CHP Technical Assistance Partnership**

Cliff Haefke has over 16 years of experience in the energy industry and currently serves as the Director of the Energy Resources Center (ERC), located at the University of Illinois at Chicago (UIC). The ERC is an interdisciplinary public service, research, and special projects organization that works to improve energy efficiency and the environment, providing expertise in the areas of energy efficiency, distributed generation, utilities billing management, and biofuels and bioenergy. As Director, Cliff oversees the Center's business and research efforts and is responsible for the Center's strategic direction. At the ERC, Cliff serves as the Director of the U.S. Department of Energy (DOE) sponsored Midwest CHP Technical Assistance Partnership, a technical outreach program that promotes combined heat and power (CHP), waste heat-to-power (WHP), and district energy CHP technologies in the industrial, commercial, and institutional market sectors in the 12 State Midwest Region. In addition, Cliff serves as the Assistant Director to the UIC's U.S. DOE Industrial Assessment Center, a program that provides no-cost energy assessments to small-to-medium sized manufacturing facilities and trains student engineers in the activities of energy assessments. Cliff has a B.S. in Mechanical Engineering and a MBA, both from the University of Illinois at Chicago. Cliff also serves as President of the Midwest Cogeneration Association (MCA).

#### **Dr. Robert Lasseter, UW-Madison**

Dr. Robert Lasseter, UW-Madison is an expert on power systems, application of power electronics to power systems and Microgrids. He is the technical lead for the Consortium for Electrical Reliability Technology Solutions' (CERTS) Microgrid Project.

#### **Jerome Malmquist, University of Minnesota**

Jerome Malmquist, Director, Energy Management at the University of Minnesota, manages the staff responsible for facility and utility engineering, utility production and distribution, building control systems, energy optimization, record retention and facility maintenance support on the Twin Cities Campuses and the technical support of state wide facilities as requested. The organization, a skeleton crew in the year 2000, has been developed and is widely recognized as a high performing team of engineers, technicians and trades. Prior to the University, Jerome spent twenty-seven years with the 3M Company and a 3M spin-off. He began his career in engineering project management working his way up through research and development, machine design, plant engineering, eventually managing corporate plant and facility engineering activities from New Jersey to California and Tennessee to Minnesota. Was nationally recognized as the Plant Engineer of the Year for contributions in reducing plant site emissions by over 90% at a 3M plant in Camarillo, California. He served five years on the Board of Directors for the Ventura County Economic Development Association. Jerome is a graduate of the University of Minnesota's College of Science and Engineering with a Bachelors of Mechanical Engineering.

#### **Sacha Kathuria, International Energy and Environmental Strategies, LLC**

Sacha Kathuria is an energy and environmental regulatory consultant and serves as a legal and regulatory analyst for an oil pipeline trade association in Washington, D.C. Sacha holds an LLM in Energy and Environmental Law from The George Washington University Law School, a Juris Doctor from Duquesne University, a Master in Public and International Affairs from the University of Pittsburgh, and a Bachelor of Arts in International Affairs and History from The George Washington University. A native of Western Pennsylvania, she speaks Urdu, German, and French. Sacha was previously a program manager focusing on energy projects for the Midwestern Governors Association and served as an attorney for the oil and gas industry and as general counsel to an export trading company. She is also an adjunct faculty member at Saint Vincent College and is a Vice Chair of the International Energy and Natural Resources Committee of the American Bar Association Section of International Law.

#### **Jeff Dagle, PE, Pacific Northwest National Laboratory**

Electricity is fundamental to our nation's health, safety, and economy. However, extreme weather events, earthquakes, cyber attacks, and other threats have the potential to cause large-scale outages, putting lives at risk. Jeff Dagle will present an overview of a recent report "Enhancing the Resilience of the Nation's Electricity System" by the National Academies of Sciences, Engineering, and Medicine. Jeff recently served on the committee who authored this report, which was released July 20. In addition, he will describe how our research at the Pacific Northwest National Laboratory aligns with and contributes to these national goals.

Jeff Dagle has worked at the Pacific Northwest National Laboratory, operated by Battelle for the U.S. Department of Energy (DOE), since 1989. During that time has had led numerous projects in the areas of transmission reliability and security. Recent project highlights include leading the North American SynchroPhasor Initiative (NASPI), serving on the leadership team of the DOE Grid Modernization Laboratory Consortium, co-leader for the PNNL Future Power Grid Initiative from 2010 to 2015, and led the team providing cyber security reviews for the DOE Smart Grid Investment Grants and Smart Grid Demonstration Projects associated with the American Recovery and Reinvestment Act of 2009. Other career accomplishments include leading the data requests and management task for the U.S.-Canada Power System Outage Task Force investigation of the August 14, 2003 blackout, supporting the DOE Infrastructure Security and Energy Restoration Division with on-site assessments in New Orleans following Hurricane Katrina in 2005, and serving as a member of the National Infrastructure Advisory Council (NIAC) study group that was formed in 2010 to establish critical infrastructure resilience goals. In 2014 Mr. Dagle was invited to serve on a National Academy committee to provide recommendations for the analytical research foundations for the next generation electric grid. In 2015 he was invited to serve on another National Academy committee focused on enhancing the resiliency of the Nation's electric power transmission & distribution system. He is a Senior Member of the IEEE and a member of National Society of Professional Engineers (NSPE).

He received the 2001 Tri-City Engineer of the Year award by the Washington Society of Professional Engineers, and is a registered professional engineer in the State of Washington. He is the recipient of several patents, a Federal Laboratory Consortium (FLC) Award in 2007, and an R&D 100 Award in 2008 for the Grid Friendly™ Appliance Controller technology. He received B.S. and M.S. degrees in Electrical Engineering from Washington State University in 1989 and 1994, respectively.

**Rhonda Dunfee, Office of Electric Reliability, Federal Electric Regulatory Commission (FERC)**

Rhonda Dunfee is a Security Group Manager within the Office of Electric Reliability at FERC. She has supported several Critical Infrastructure Protection (CIP) Reliability Standards applications, including the development of the most recent final rule on Supply Chain Risk Management. Before coming to FERC, she worked at DOE, and contributed to many cybersecurity information sharing activities from developing and participating in tabletop exercises with DHS and other government agencies, and industry, such as the NERC-led GridEx, to classified information sharing sessions for cleared members of the energy sector. She has long supported public and private collaboration and coordination to share cybersecurity information, such as organizing and conducting the 2014 North American Energy Sector Workshop with DHS and NERC. She contributed to the development of a number of cybersecurity efforts, including improved cybersecurity incident management, the Electricity Subsector Cybersecurity Capability Maturity Model, the Roadmap to Achieve Energy Delivery Systems Cybersecurity, and the Developing Secure Power Systems Professional project on identifying and categorizing security capabilities and competencies for power systems professionals. She also supported the development of the 2009 Department of Energy Workshop on High Impact, Low-Frequency Event Risk to the North American Bulk Power System and the ensuing report. Rhonda served as a Signal Corps officer in the U.S. Army, and as a civilian in the Department of Defense for over 25 years in a number of positions. They included information management, high performance computing, system and network administration, telecommunications analyst, and chief learning officer at an analytical center. She holds a Bachelors degree in Electrical Engineering from the United States Military Academy and a Master's degree in Telecommunications from Southern Methodist University.

**Roland Varriale II, Argonne National Laboratory**

Roland Varriale has worked in various capacities from a business analyst to an intelligent transportation systems researcher and developer. He is interested in the application of security principles and protocols to VANETs and Intelligent Transportation Systems as well as personal device security on the “Internet of Things.” His current research includes the application of machine learning and adversarial networks to vehicle security as well as creating more holistic security plans for intrinsically insecure systems, including industrial control systems and the grid.

**Michael McElfresh, Santa Clara University**

Michael McElfresh is currently a consultant and an Adjunct Professor of Electrical Engineering at Santa Clara University where he teaches in the Power Systems and Sustainable Engineering Program including the foundation course. Until recently he was the lead for power grid R&D at Argonne National Lab.

His career has spanned across universities, national labs, and industry, and has included working through tenure in the Physics Department at Purdue University, working at Los Alamos, Livermore, and Argonne national labs at various levels, working at IBM Research, and several Silicon Valley startups including one in solar. He is also the co-owner of a pharmaceutical startup.