NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

NERC Industry Engagement Workshop – Reliable IBR Integration and Milestone 3 of FERC Order 901

Day 2 Conference Bios

Presenter – FERC Order No.901 History and Objectives

Jamie Calderon

Director, Standards Development, NERC

Jamie joined NERC in 2015 as an engineer developing Reliability Assessments and transitioned in 2017 to a senior engineer role with Compliance Assurance. Prior to joining NERC, Jamie served as a Transmission Planning Engineer and Bulk Power dispatcher for the Municipal Electric Authority of Georgia (MEAG). Jamie Calderon received her bachelor's degree of science in Electrical Engineering Technology from Southern Polytechnic State University in Marietta, Georgia.

Panelists – IBR Modeling Requirements and Importance of Model Verification.

John Paul "JP" Skeath

Manager of Engineering and Security Integration, NERC

John Paul "JP" Skeath graduated from Colorado School of Mines in 2017 with his B.S. in Electrical Engineering with a minor in Computer Science and from Georgia Institute of Technology in 2018 with an M.S. in Electrical and Computer Engineering.

He is currently employed at the North American Electric Reliability Corporation (NERC) as a manger of Engineering and Security Integration

tasked to identify risk and design solutions to emerging energy problems. He currently is focused on Distributed Energy Resources and the impacts of aggregate DER under independent versus dependent control as seen by the bulk system.

JP is involved in various NERC Reliability and Security Technical Committee (RSTC) subgroups, including the System Planning Impacts of DER Working Group (SPIDERWG) and Electric Vehicle Task Force (EVTF). His current focus is related to DER modeling, model verification, impacts of mass electrification of EVs, and incorporating cyber concepts into transmission planning processes.

Andy Hoke

Principal engineer in the Power Systems Engineering Center, National Renewable Energy Laboratory (NREL)

Andy Hoke is a principal engineer in the Power Systems Engineering Center at the National Renewable Energy Laboratory (NREL), where he has worked for the past 14 years. He received the Ph.D. and M.S. degrees in Electrical, Computer, and Energy Engineering from the University of Colorado, Boulder, in 2016 and 2013, respectively. Dr. Hoke's expertise is in grid integration of power electronics and inverter-based renewable and distributed energy. His work includes power systems modeling and simulation, advanced inverter controls design, hardware-in-the-loop testing and model development, and standards development. He has served as Chair of IEEE 1547.1-2020 and P2800.2, which contain the test and verification procedures to ensure DERs and inverter-based resources conform to the grid interconnection requirements of IEEE Standards 1547 and 2800, respectively. He is a registered professional engineer in the State of Colorado.

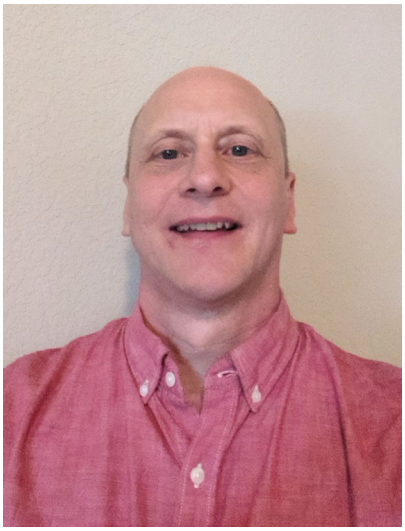
Mohamed ElNozahy

Engineering Manager for EMT Studies, Independent Electricity System Operator (IESO)

Mohamed ElNozahy is the Engineering Manager for Electromagnetic Transient (EMT) Studies at Ontario's Independent Electricity System Operator (IESO). He leads the IESO's EMT initiatives, supporting the reliable integration of Inverter-Based Resources (IBRs) into the grid to support Ontario's decarbonization targets.

With over 18 years of experience in electrical power systems, Mohamed holds a Ph.D. in Electrical Engineering from the University of Waterloo. He is a licensed Professional Engineer (P.Eng.) in Ontario, a certified Project Management Professional (PMP), and a senior member of the IEEE.

Mohamed has actively contributed to advancing industry standards and practices through his involvement in several influential groups, including multiple NERC Standard Drafting Teams, IEEE's P2800.2, and CIGRÉ Working Group C4.77.



John Schmall

Principal Engineer in Grid Planning, ERCOT

John Schmall is a principal engineer in grid planning at ERCOT. He received a Bachelor of Science degree in Electrical Engineering from Rose-Hulman Institute of Technology in 1991. After receiving his degree, he worked for Commonwealth Edison in Chicago, IL where he completed assignments in both distribution design and transmission planning. He joined ERCOT in 2005 where his responsibilities have included dynamic analysis and modeling associated with the integration of inverter-based resources, compliance with NERC standards, voltage stability, and underfrequency load shedding program assessments. He is a senior member of the Institute of Electrical and Electronics Engineers (IEEE) and a Registered Professional Engineer in the State of Illinois.

Bo Gong

Senior Principal Engineer in Transmission Planning, Salt River Project

Bo Gong is a Senior Principal Engineer in Transmission Planning in Salt River Project, where he leads studies for IBR and HVDC integration.

Brad Marszalkowski

Supervisor of the Resource Integration group, ISO New England

Brad is the Supervisor of the Resource Integration group at ISO New England. His team manages dynamic models, reviews validation reports, develops regional requirements for interconnections, and leads EMT related activities. His activities include analysis and management of transmission level system impact studies for primarily inverter based generators interconnecting to the sub-transmission and distribution networks, PSPD and EMT model management, process automation, and he is an active participant in NERC and IEEE working groups where he chairs NERC project 2020-06.

Moderator

Enoch Davies

Manager of Reliability Modeling, WECC

Enoch began his career at WECC in 2005 after graduating from the University of Utah with a Bachelor of Science in electrical engineering. While at WECC, Enoch earned a Master of Engineering in electrical engineering from the University of Idaho and became a professional engineer in the state of Utah. Enoch is currently the Manager of Reliability Modeling. He is focused on the reliability and security of the Western Interconnection, and is involved in many industry groups.

Panelists – Interconnection-Wide Cases – Model Fidelity and Use Cases

Mark Henry

Chief Engineer and Director of Reliability Outreach, Texas RE

Mark Henry is Chief Engineer and Director, Reliability Outreach at the Texas Reliability Entity, one of six NERC Regional Entities. Mark works with a team focused on long-term reliability assessments, performance monitoring and disturbance event analysis for the Texas Interconnection, sharing how grid transformation and the integration of variable energy, inverter-based resources, storage devices, distributed energy sources and large loads create challenges and opportunities, with added concerns from extreme weather and other disruptive conditions. Prior to this role, he developed and managed reliability compliance programs at Texas RE and ERCOT ISO and served in varied assignments as a utility engineer and supervisor at a central Texas utility. Mark is a licensed Texas professional engineer, a Certified Energy Manager, and he holds a BSEE from the University of Texas at Austin, with a graduate certificate in Telecommunication Management from St. Edwards University.

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Manager of Reliability Modeling, WECC

Enoch began his career at WECC in 2005 after graduating from the University of Utah with a Bachelor of Science in electrical engineering. While at WECC, Enoch earned a Master of Engineering in electrical engineering from the University of Idaho and became a professional engineer in the state of Utah. Enoch is currently the Manager of Reliability Modeling. He is focused on the reliability and security of the Western Interconnection, and is involved in many industry groups.

Shayan Rizvi

Senior Technical Advisor, NPCC

Shayan Rizvi is a Senior Engineer within the Reliability Assessments and Performance Analysis group at the Northeast Power Coordinating Council (NPCC). His responsibilities focus on system studies and the reliable integration of distributed energy resources. He currently serves as Chair of the NERC System Planning Impacts of Distributed Energy Resources Working Group.

Prior to joining NPCC, Shayan served as a Transmission Planning Engineer and Project Manager, advising RTOs/ISOs and utilities across the country. His experience covers transmission planning and operations, system modeling, power system analysis, automation, and outage coordination.

Shayan holds a Master of Science in Power Systems Engineering & Management from Worcester Polytechnic Institute and a Bachelor of Science in Electrical Engineering from the University of Connecticut.

Christian Danielson

Director, Cybersecurity, ERCOT

Christian Danielson is Director of Cybersecurity at the Electric Reliability Council of Texas (ERCOT), where he works with a team focused on ensuring power system reliability and supporting the integration of generation and load resources. With over eight years of experience in power system planning, Christian specializes in dynamic stability, EMT, and system impact studies. He collaborates closely with stakeholders and developers to support accurate modeling and integration of inverter-based resources into the grid. Prior to this role, he worked as a consultant and conducted various transmission system planning and generation interconnection studies. Christian holds a BSEE from Louisiana State University.

Moderator

John Paul "JP" Skeath

Manager of Engineering and Security Integration, NERC

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