

Profession: Electric Power Systems and Power System Reliability

Nationality: U.S. Citizen

Years of Experience: 40+ years

Education: B.S., Electrical Engineering Power Emphasis/ University of Missouri - Rolla (1977)

Position: President –Grid Reliability Consulting, LLC

Summary: Mr. Hilt is an experienced senior manager and has led the development and implementation of numerous significant projects. He is a leading expert in bulk power system reliability including planning, design, operations, and compliance. As a consultant, he has led numerous projects for clients and assisted other organizations and law firms with projects. His work includes assisting clients with NERC Reliability Standards compliance (including program reviews, mock audits, pre-audit assessments, critical infrastructure protection asset identification and compliance, event analysis and investigation support, and evaluation of NERC alerts including Aurora and facility ratings), evaluation of transmission system enhancements, FERC Order 1000 implementation, due diligence reviews of options, and assisting with key management decisions.

Prior to forming Grid Reliability Consulting, he was Vice President of multiple business groups including Regulatory Services and Transmission at Quanta Technology, the technical consulting arm of Quanta Services. Prior to Quanta Technology, he was Vice President and Director of Operations and Engineering for the North American Electric Reliability Corporation (NERC), the organization designated as the Electric Reliability Organization (ERO) by the Federal Energy Regulatory Commission (FERC) to develop and enforce mandatory bulk power system reliability standards in the United States. He also served as Vice President and Director of Compliance for NERC for 10 years. In roles at NERC, David was charged with the development and implementation of the compliance monitoring and enforcement program to monitor and enforce reliability standards throughout North America. He was responsible for the implementation of the program through delegation agreements with the eight regional entities and for processing of all enforcement actions with FERC and other governmental authorities. He also led the investigation of the August 14, 2003 blackout in the Northeastern United States and parts of Canada organizing a 200-person team of subject matter experts and providing results to the U.S. – Canada Power System Outage Task Force established by the U.S. President and the Canadian Prime Minister. He was also responsible for bulk-power system event investigations and analysis as the ERO.

David has been actively involved with many industry organizations including FERC, DOE, NASPI, INPO, NRC, Canadian Provincial authorities, and Canadian energy groups in addition to NERC, its various committees, and the regional entities.

Experience:October 2014 -
Present

Grid Reliability Consulting — Mr. Hilt formed Grid Reliability Consulting to assist the industry with ensuring the reliability of the electric grid in North America building on his expertise and experience. The company has engaged with numerous clients on projects related to NERC Compliance, electric grid outage settlement, FERC Order 1000 opportunities, training, transmission system expansion, and operations.

November/2010 –
Present**Quanta Technology, Raleigh, NC**

Vice President — Mr. Hilt managed the Transmission and Regulatory Services business areas within Quanta Technology. At Quanta Technology, Mr. Hilt and the Quanta Technology team he led provided multiple services including NERC compliance, transmission planning and operation analysis, economic and production cost analysis including market and congestion analysis, control center and EMS support, interconnection studies, synchrophasor technology application and implementation, special R&D studies, process and organizational design, and training.

Mr. Hilt has worked with numerous clients ranging from wind farms, independent power producers, to large utilities providing assistance with their needs for transmission system analysis, business decision support, and regulatory support.

02/2010 – 10/2010

North American Electric Reliability Corporation, Princeton, New Jersey

Vice President of Operations and Engineering — In this position, Mr. Hilt was responsible for the integration of Bulk Power System Event Analysis and Investigations, NERC's situation awareness function, education and training programs including education product delivery and system operator certification, NERC's system analysis and reliability initiatives including the North American Synchro Phasor Initiative (NASPI), NERC's reliability tools and contracts, and the NERC Operating and Planning Committees and associated subcommittees. Key accomplishments included:

- Organization of department and team to provide results to industry
- Development and implementation of processes to publish lessons learned from bulk power system events
- Led review and analysis of numerous bulk power system events for lessons learned
- Promoted development of a resource center for the power industry

09/1999 – 10/2010

Vice President and Director of Compliance (Final Title) — In this position, Mr. Hilt was responsible for the development and implementation of the compliance monitoring and enforcement program for approved reliability standards in North America. He was responsible to establish and implement the regulatory framework used by the Electric Reliability Organization including organization registration, compliance

audits, event investigation and analysis, and enforcement processes. In his role, he supported numerous regulatory filings and served as an expert witness before the Federal Energy Regulatory Commission on numerous occasions. In this role, he also led the investigation of the August 14, 2003 blackout of the Northeastern United States and Canada. During his time in this position he was also responsible for many other key initiatives. Key accomplishments include:

- Led and managed the 200-person industry technical investigation of the August 14, 2003 blackout in the Northeastern US and Ontario, Canada, providing technical support to the US – Canada Power Outage Task Force established by the U.S. President and Canadian Prime Minister. Investigation technical findings and recommendations to improve grid reliability have been accepted and adopted across North America by industry and governmental experts and regulators.
- Developed and implemented NERC's Compliance Monitoring and Enforcement Program, including new processes, procedures, and infrastructure to monitor and evaluate industry compliance with reliability standards and requirements.
- Led and managed the transition of NERC's Compliance Monitoring and Enforcement Program to meet the requirements of the federally mandated Electric Reliability Organization in the US and coordinating the implementation in Canadian provinces.
- Led the development and transition of the regional compliance monitoring and enforcement programs into a single uniformly applied Electric Reliability Organization program.
- Led the development and implementation of criteria, processes, and procedures for registration of bulk power system users, owners, and operators.
- Led a group of investigators in the investigation of numerous power system events.
- Led the development of settlement strategies for numerous compliance matters.
- Developed and implemented NERC's Reliability Readiness and Improvement Program, including the Reliability Audit program that has evaluated all of North America's bulk power operators, provided recommendations for improvement, and highlighted examples of excellence.
- Presented results of the blackout investigation, reliability readiness, compliance enforcement program, and other key initiatives to industry executives, regulators, and engineering staffs of the North American electric utility industry calling for material improvements in grid reliability through changes in operational practices and staff training.
- Led the initial development efforts for NERC's ANSI-approved Standards Development Process, now fully established and developing mandatory reliability standards.
- Developed close working relationships with key FERC and Canadian Provincial regulatory staff and industry stakeholders.

09/1996 – 09/1999

Mid America Interconnected Network (MAIN), Inc, Lombard, IL

Director of Operations — While at MAIN, Mr. Hilt was responsible for implementing and maintaining the security center for NERC mandated

Security (Reliability) Coordinators as well as the system to support open access transmission. He was also responsible for all information technology at MAIN. Key accomplishments include:

- Implemented Open Access Same Time Information System (OASIS) for major Midwestern Utilities for posting and sale of transmission system capability for interchange transactions.
- Developed and implemented Electric Transmission Security Center for major Midwestern Utilities as one of the original NERC Security Coordinators (now Reliability Coordinators) responsible for monitoring and directing actions on the bulk power system.

06/1983 – 09/1996

Central Illinois Public Service Company, Springfield, IL

Various Positions — While at Central Illinois Public Service, Mr. Hilt was responsible for substation design and construction for all electric substations from the distribution level through 345 kV including protective relaying. After several years leading the substation design group, Mr. Hilt was promoted to lead the system planning group. This group was responsible for all transmission system and resource planning for the company. He provided testimony for projects and resource plans before the Illinois Commerce Commission. While at Central Illinois Public Service, he led a municipal utility as an elected town trustee and negotiated power supply and labor agreements for the community. Key accomplishments include:

- Developed capability curves for generating units and trained operating personnel on their use.
- Directed stability studies and joint planning studies with other utilities.
- Developed corporate policy for Electromagnetic Field (EMF) and organizing special task force.
- Produced resource assessments and testimony on 20-year Electric Energy Plans.
- Chaired working groups for various operating and planning studies of generating units including least cost plan filing, unit efficiency improvement, clean air act compliance, cost – benefit, and risk management studies.
- Developed study methodology and initiated an economic life study of all generating units resulting in increased sales of capacity - co-funded and recognized by EPRI as innovative.
- Developed numerous improvements to substation design and construction systems at a major Midwestern utility.

Professional Affiliations:

Registered Professional Engineer in Missouri and Illinois
Institute of Electrical and Electronics Engineers (IEEE) – Senior Member (Inactive)

Publications:

Published numerous articles in industry trade magazines and conference proceedings and other publications related to NERC Reliability Standard compliance, grid operations, resource planning, substation design and construction, and power system planning.

Recipient of Electric Power Research Institute Innovators Award for resource planning methodology used to evaluate generating unit economic life.