

# Navigating a Transforming Utility Landscape

## NWESS 2026

University of Washington  
Alder Hall  
April 1-2, 2026



**Speaker:** Jonathan Tacke

**Title:** Cybersecurity Threats and Policy Implications for Battery Energy Storage Systems

**Abstract:** The integration of battery energy storage systems (BESS) across critical infrastructure is a cross-sector resilience issue with direct implications for national security, industrial stability, and public safety. BESS now supports communications towers, hospitals, military installations, data centers, and electric vehicles, making its security a strategic imperative. As these systems become deeply embedded in critical operations, cyber vulnerabilities in BESS can create cascading disruptions across multiple sectors, threatening infrastructure reliability and operational continuity.

China currently dominates the global BESS supply chain, controlling a significant share of battery manufacturing, power electronics, and critical raw materials. This market concentration creates supply chain dependencies and cybersecurity risks, particularly for U.S. infrastructure reliant on foreign-manufactured components. Traditional “rip and replace” strategies have proven economically and technically destabilizing, underscoring the need for a more pragmatic risk management approach. This session will explore policy responses to supply chain dominance, including targeted risk mitigation strategies, diversification of suppliers, and the adoption of Cyber-Informed Engineering (CIE) principles. A key discussion point will be the need for independent “right to inspect” policies, ensuring asset owners and regulators can verify the security of foreign-manufactured components.

As BESS becomes a linchpin for industrial and national security, securing these systems requires proactive policies, regulatory enforcement, and industry-wide collaboration. This session provides a strategic roadmap for reducing foreign dependencies and strengthening BESS resilience across critical infrastructure sectors

**Bio:** Dr. Jonathan Tacke is an electrical engineer and researcher specializing in power systems, critical infrastructure protection, and secure control system design. At Idaho National Laboratory, Jonathan contributes to national security and energy resilience initiatives, applying expertise in power and controls engineering to strengthen the reliability and security of modern grid and industrial systems. His

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work spans threat-informed analysis, resilient architecture development, and cross-disciplinary research aimed at enhancing the defensibility of critical energy infrastructure.

With experience supporting complex national security programs and collaborating with multidisciplinary teams, Dr. Tacke's research focuses on bridging advanced engineering with practical mission needs. He has contributed to efforts addressing supply-chain risk, secure system integration, and emerging vulnerabilities in energy delivery systems. Dr. Tacke brings a background in applied electrical engineering, technical analysis, and program execution to advance INL's mission of securing and modernizing the nation's energy infrastructure.

