GE Vernova addresses grid reliability and digitization challenges at DISTRIBUTECH 2025

- GE Vernova launches new whitepapers at DISTRIBUTECH 2025 to help utilities tackle grid reliability, cybersecurity, and digitalization challenges.
- Insights focus on virtualized protection, AI-driven grid management, and secure remote access for modern, resilient energy networks.
- Experts showcase solutions live at DISTRIBUTECH 2025, Booth 3223, demonstrating real-world tools for a future-ready grid.

TEXAS, US (March 25, 2025) - As utilities worldwide confront growing challenges in grid security, modernization, and reliability, GE Vernova has released a series of whitepapers offering practical strategies to strengthen energy systems. Launched during DISTRIBUTECH 2025 in Dallas, Texas, these whitepapers provide global grid operators with insights into cybersecurity, digitalization, automation and artificial intelligence (AI) strategies—all critical for ensuring a secure, resilient, and future-ready energy network.

Why grid reliability and automation are more crucial now than ever

The world is entering a new age of electricity, where AI-driven data centers, electrified transport, and industrial automation are reshaping energy demand. This shift is putting immense pressure on grids, forcing utilities to rethink their approach to resilience and efficiency. At the same time, energy grids have become prime targets for sophisticated cyberattacks. To respond, utilities must adopt scalable, software-based solutions that have the power to revolutionize the grid—enhance reliability without costly hardware overhauls, ensuring secure remote access and substation resilience, optimizing grid utilization, unlocking new economic

opportunities, and more.

GE Vernova's latest whitepapers provide actionable guidance to help utilities navigate these pressing challenges to help secure their networks and achieve a grid fit for the future.

Key Focus Areas in the Whitepapers

1. Modernizing with Virtualized Protection, Automation & Control (VPAC)

Utilities are facing a fundamental shift in how protection and control systems are managed. Traditional hardware-dependent protection systems are struggling to keep up with evolving grid complexities, making virtualization an essential tool for modern utilities. GE Vernova's research explores:

- **Unlocking Resilience & Scalability with Virtualized Software-Defined Substation Solutions** – GE Vernova's study explores how virtualization can replace cumbersome hardware dependencies, reduce operational costs, and enable seamless remote upgrades—ushering in a new era of flexible, software-driven grid management. Download here.

2. Strengthening Grid Cybersecurity

The power grid is no longer just an engineering challenge—it's a security imperative. These grids remain prime targets for cyberattacks, with legacy systems and digital substations often serving as vulnerable points. Two whitepapers focus on:

- **Secure Remote Access Solutions** – Many grid assets were never designed for remote operation, making them highly vulnerable to cyberattacks. This whitepaper outlines next-generation access control strategies to safeguard legacy infrastructure while enabling seamless modernization. Download here.
- **Substation Cyber Resilience** – Digital substations are revolutionizing grid management, but they also introduce new risks. This whitepaper explores multi-layered cybersecurity strategies that strengthen defenses, minimize

attack surfaces, and protect against sophisticated grid disruptions. Download here.

3. Empowering Intelligent Grids With AI

- The energy landscape is rapidly transforming, and utilities are facing unprecedented challenges driven by the integration of renewable energy sources, increasing grid complexity, and the need for enhanced resilience against cyber threats and extreme weather events. Traditional grid management approaches are proving inadequate in addressing these dynamic challenges. This whitepaper—part of a series of four—delves into the pivotal role that AI can play in revolutionizing grid management. Download here.

Showcasing Innovation at DISTRIBUTECH 2025

At DISTRIBUTECH 2025 in Dallas, Texas, GE Vernova is showcasing its latest advancements in grid digitization and automation technologies, providing real-world solutions for grid reliability, security, modernization and orchestration. Experts will be on-site at Booth Number 3223 to discuss the insights from the whitepapers and demonstrate how advanced digital and automation solutions can help utilities build a more resilient and future-proof power network.

About GE Vernova

GE Vernova Inc. (NYSE: GEV) is a purpose-built global energy company that includes Power, Wind, and Electrification segments and is supported by its accelerator businesses. Building on over 130 years of experience tackling the world’s challenges, GE Vernova is uniquely positioned to help lead the energy

transition by continuing to electrify the world while simultaneously working to decarbonize it. GE Vernova helps customers power economies and deliver electricity that is vital to health, safety, security, and improved quality of life. GE Vernova is headquartered in Cambridge, Massachusetts, U.S., with approximately 75,000 employees across approximately 100 countries around the world. Supported by the Company's purpose, The Energy to Change the World, GE Vernova technology helps deliver a more affordable, reliable, sustainable, and secure energy future.

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