

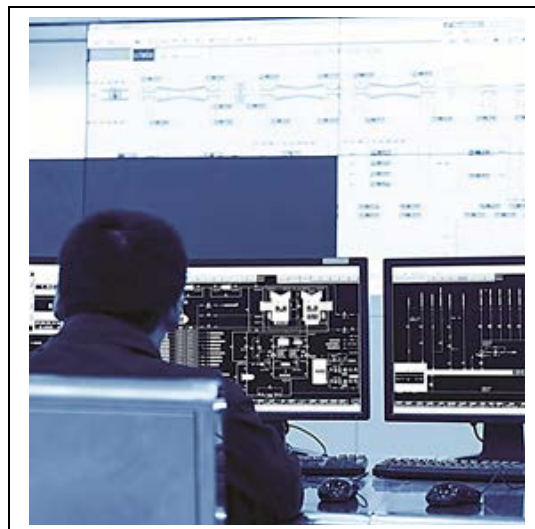
How Can Distribution Automation Improve Grid Reliability and Efficiency While Reducing Costs?

Technologies and Business Models are Evolving

Utilities are striving to improve and maintain high levels of service reliability and operating efficiency while focusing on cost and sensitivity to environmental impacts. They are doing so in a rapidly evolving landscape where distributed generation, renewable energy resources, microgrids, and energy storage are being adopted at an increasing rate, and many of these technologies have radically different characteristics than traditional sources and loads.

Solving the Integration and Grid Operation Problems

Distribution automation (DA) has emerged as a key component of a modern grid, and provides a path to maintain reliability and accommodate new technologies at a reasonable cost. DA technologies include intelligent distribution systems that use a network of sensors and controls to provide greater reliability, flexibility, and agility. These technologies enable active participation by consumers; help integrate new products, services, and markets; accommodate all energy generation and storage options; improve power quality; optimize asset utilization and operating efficiency; anticipate and respond to system disturbances in a self-healing manner; and operate resiliently against physical attacks, cyberattacks, and natural disasters.¹



Modern Technologies Need Modern Policies

To realize the benefits that DA technologies offer, policymakers must focus on enacting policies that encourage research, development, and deployment of modern grid equipment. Enacting comprehensive energy reform should be a top priority of Congress, and a final energy package should include grid modernization research and development funds, financing options for utilities and states that want to improve the resiliency of their electric infrastructure, and permitting and process improvements that streamline the process of approving and building modern electric transmission and distribution systems.

NEMA Has the Answers to Your Questions

NEMA's Distribution Automation Section represents manufacturers of DA equipment, systems, and software used to supervise, measure, monitor, and control electrical loads on distribution grids and at distribution substations. The section has recently published a whitepaper that covers these topics in more detail, including NEMA's recommendations for fully realizing the benefits of DA systems. It also contains case studies highlighting utility experiences. The paper is available at the following URL: <http://www.nema.org/DA-Modernized-Grid-Whitepaper>

Contact NEMA's Director for Government Relations, Patrick Hughes, at Patrick.Hughes@nema.org or 703.841.3205 for more information.

¹ U.S. Department of Energy's Modern Grid Initiative, "Metrics for Measuring Progress toward Implementation of the Smart Grid." U.S. DOE, June 2008. Even though these metrics were released seven years ago they are still relevant and the industry continues to work towards these goals.