Announcement
Electric–Gas Interdependencies, Potential Summer Energy Shortfalls are Focus of Board Discussions

May 13, 2021

WASHINGTON, D.C. – Critical infrastructure interdependencies and potential energy shortfalls this summer were featured during NERC’s quarterly Board of Trustees meeting. Participants emphasized that cyber risk and extreme weather are significant threats to reliability that demand continuous vigilance by all stakeholders.

Opening remarks were made by Nick Akins, chief executive officer (CEO) at American Electric Power; James Danly, commissioner at the Federal Energy Regulatory Commission (FERC); Patricia Hoffman, acting assistant secretary at the Department of Energy’s (DOE’s) Office of Electricity; and David Morton, CAMPUS representative to NERC.

In his remarks, Akins stressed that maintaining system resilience must remain the central focus as the industry continues to undergo rapid transformation. Noting NERC’s independent voice, he highlighted how NERC’s technical assessments are more important than ever to inform industry and policymakers of the risk around the changing grid. Akins commended the importance of the Electricity Information Sharing and Analysis Center (E-ISAC) work on security with a specific mention of GridEx, noting that testing resiliency is a critical part of industry’s discipline.

Danly recognized NERC for its effective work with FERC in ensuring reliability and addressing recent security events. He focused on the importance of reliability standards, conveying that NERC’s aggressive actions in ensuring properly formulated, technically accurate and effectively enforced standards are critical to assuring reliability. He noted that the evolving system makes this challenge particularly difficult and that NERC should stay proactive, evolving standards in line with changing risks.

Stressing that the future will require significant new investments in infrastructure, Hoffman focused on transmission, system upgrades and flexible resources. Noting
that the Colonial pipeline attack is a call for continued vigilance on cyber security, she cited the importance of locking down access points, monitoring and forensics, supply chain protection and partnerships. Hoffman also thanked NERC for its partnership with DOE on reliability and security matters.

Morton thanked NERC for the continued partnership with Canadian regulators, congratulated NERC on the launch of Align and shared his appreciation for the collaborative work with NERC and the E-ISAC. Reflecting on the February cold weather events and Canada’s experience with such extremes, he stressed the importance of these issues to CAMPUT as well as how these events can provide learning opportunities and inform mitigations, including reliability standards.

Next, NERC President and CEO Jim Robb noted the extraordinary events of the past nine months, which included major weather events, supply chain compromises and the Colonial pipeline cyber attack, showing that the reliability and security risk to the electricity system has seen a step change increase.

“The Colonial pipeline attack underscores the interconnectedness of electricity with other infrastructures and is the reason we must redouble our focus on the reliability of the pipeline system that delivers essential fuel,” Robb told the virtual audience. “If this had happened to a major natural gas line serving electricity generators under extreme cold weather conditions, the results could have been catastrophic.”

Robb also referenced NERC’s 2017 Special Assessment: Potential Bulk Power System Impacts Due to Severe Disruptions on the Natural Gas System, which called for gas industry regulators to establish cyber security standards comparable to NERC Reliability Standards, saying: “It is time for policymakers to refocus on ensuring that gas infrastructure is as secure as the grid it supplies. This is not a jurisdictional play,” he noted. “Rather, it underscores the need for foundational security standards for an industry that is critical to reliability and national security.”

The Board received a preview of NERC’s 2021 Summer Reliability Assessment, which is scheduled to be released at the end of the month. Based on predictions of above-normal temperatures throughout much of North America, the assessment warns of Regions where the risk of energy shortfalls during extreme conditions are elevated or high. Texas, New England and MISO are found to have “elevated risk.” Of greatest concern in the high-risk category is California, where up to 11 GW of additional transfers are expected to be needed in late afternoon to offset reduced solar output. This is in contrast to 1 GW of transfer needed on a normal peak day.

Robb noted how present NERC’s priorities of extreme weather, concerns over energy adequacy and supply chain were last year. “We have consistently signaled the need to be cognizant of reliability issues as we navigate this transition to a cleaner energy future and the need to manage the pace of change,” Robb said. “We can’t take our eye off the ball as the resource situation continues to become more complicated and more dependent on other critical infrastructures and weather conditions.”
The Board received several updates on ongoing activities, including the Cold Weather standards project, the Critical Infrastructure Protection (CIP) Board resolution and development of the 2021 State of Reliability report.

Howard Gugel, NERC’s vice president of Engineering and Standards, provided updates on Cold Weather project activities and the CIP resolution. The Project 2019-06 – Cold Weather standards drafting team is currently drafting revisions to three reliability standards to improve generator preparedness for cold weather and enhance situational awareness in cold weather conditions, consistent with the recommendations from the July 2019 FERC–NERC Staff Report, Gugel said.

The Board directed the standard revisions be completed no later than June 2021 and, to facilitate meeting the deadline, the Standards Committee authorized a waiver to reduce the length of the additional formal comment and ballot period — from 45 days to 25. The revisions to the three standards passed the additional ballot and will be moved to a final ballot in mid-May.

Next steps include implementing any actions resulting from the FERC–NERC cold weather inquiry and looking into standards for Regional Coordinator and/or Balancing Authority seasonal emergency energy management plans, Gugel noted.

“It is important that we address these issues promptly,” Gugel said. “We have very recent experience with the impact of cold weather and cyber attacks that magnify the urgency of focusing on these very real risks to the reliable operation of the bulk power system.”

Regarding CIP resolution activity, at the February 2021 Board meeting, NERC staff recommended the withdrawal of CIP-002-6, which the Board endorsed and approved with a resolution to undertake additional actions to protect low-impact cyber systems. Among other actions, Gugel described the formation of a Low-Impact Criteria Review team to examine the degrees of risk presented by low-impact Bulk Electric System cyber systems. The team will develop a report on their findings.

John Moura, NERC’s director of Reliability Assessment and Technical Committees, provided preliminary findings from the 2021 State of Reliability, which will focus on the unprecedented conditions that challenged grid resilience in 2020. These conditions most notably included the ongoing pandemic, a historic hurricane season, extreme heat and wildfires in the West, the supply chain compromise and other cyber security attacks and vulnerabilities, among other challenges. However, there are also some positive findings, Moura said. The report finds that in addition to fewer overall events on the system, restoration time of transmission system outages after extreme weather has improved and the misoperation rate has continued to decline.

In Board action, Project 2015-09 – Establish and Communicate System Operating Limits (SOL) was adopted, which revises the requirements for determining and communicating SOL to address issues identified in Project 2015-03 – Periodic Review of SOL Standards. The revised standards and definitions will benefit reliability by improving alignment with approved Transmission Planning (TPL) and proposed
Transmission Operations (TOP) and Interconnection Reliability Operations and Coordination (IRO) Standards.

Additionally, the Board approved the initiation of the NERC membership renewal process, which will take place during July–August 2021. Under this process, all NERC members will be required to renew their membership registration according to the revised NERC Membership Sector criteria approved by FERC in April 2021.

Proposed revisions to NERC’s Rules of Procedure (ROP) were also approved during the quarterly meeting. The revisions serve to modernize the ROP, reflect current business practices and enhance a risk-based approach to monitoring and enforcing compliance. The fundamental elements of NERC’s mandatory Reliability Standards would not change, the revisions help increase efficiencies in compliance monitoring and enforcement activities across the ERO Enterprise.

Board presentations are located on the Board of Trustees agenda page on NERC’s website. The next Board meeting is August 12 via WebEx.

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*Electricity is a key component of the fabric of modern society and the Electric Reliability Organization Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable and secure North American bulk power system. Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.*