

Announcement

ERO Enterprise Publishes Cyber-Informed Transmission Planning White Paper

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ATLANTA – The North American bulk power system is facing a rapidly evolving threat landscape that is characterized by increasingly sophisticated cyber attacks, emphasizing the need to strengthen the resilience of the grid against potentially catastrophic impacts. To address this, the ERO Enterprise — NERC and the six Regional Entities — developed a [white paper](#) that introduces a cyber-informed transmission planning framework and provides a roadmap for integrating cyber security into transmission planning activities.

Incorporating cyber-informed transmission planning approaches to mitigate reliability impacts that could result from cyber attacks is a key tenet of NERC's [Security Integration Strategy](#) and one of NERC's [2023 work plan priorities](#). By incorporating security where it has traditionally not been considered, industry will be able to better ensure the effective reduction of risks to the reliability and security of the bulk power system.

“The ERO Enterprise team worked closely together to develop this critical framework,” said Mark Lauby, NERC’s senior vice president and chief engineer. “The framework sets the stage to plan for a more resilient and secure system, addressing the risk in the long-term planning horizon rather than attempting to bolt on security later in the future. It also seeks to reduce the number of critical stations on the bulk power system through integrated transmission and cyber security enhancements.”

The *Cyber-Informed Transmission Planning* white paper addresses key focus areas deemed vital to the successful integration of security concepts into transmission planning practices and processes:

- Aligning terminology and definitions across security and engineering disciplines.
- Mapping cyber security threats, vulnerabilities and impacts to conventional transmission planning contingency definitions.
- Analyzing the current state of cyber security considerations in long-term planning studies and recommending enhancements to existing standards.
- Introducing the framework and thought processes for integrating cyber security

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concepts into transmission planning practices and processes.

- Outlining a high-level roadmap for cyber security integration with long-term transmission planning practices, including recommendations for next steps.

The framework is intended to drive investments in cyber security where warranted and can be used by various entities — NERC, Regional Entities, stakeholders, regulators and policymakers — to perform reliability studies that may uncover risks to the bulk power system that would then need to be mitigated. Additionally, the white paper examines the integration of existing physical security measures within transmission planning, identifying potential enhancements and exploring alternative mitigation strategies, such as minimizing the number of critical facilities. The white paper recommends piloting the framework in collaboration with stakeholders to demonstrate its value while deriving insights for iterative improvement and refinement. Outcomes from the pilot projects will inform potential enhancements to NERC Reliability Standards, as deemed appropriate.

NERC and the Regional Entities partner to share information, knowledge and resources to support the critical, collective mission and vision of assuring the reliability, resilience and security of the North American bulk power system. The ERO Enterprise remains committed to working collaboratively across disciplines to identify ways in which enhanced coordination and collaboration can result in a more cyber-resilient grid.

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Electricity is a key component of the fabric of modern society and NERC, as the Electric Reliability Organization, 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.