

Building a More Secure Electric Transmission Grid

A Practical Approach



Our Approach

ITC has been investing in electric transmission systems since our inception in 2003. Our sole focus continues to be on upgrading and building high voltage transmission systems that are modern, robust and resilient. A strong grid combined with sound practices around deterrence, detection and mitigation is the best line of defense against unforeseen events. While ITC has made significant strides, we know that this is an ongoing process. ITC continues to work to reach a modernized national power grid.

National Grid Reliability Standards for Physical Security

The U.S. electric industry is the only industry with mandatory reliability standards. However, as vulnerabilities and threats evolve, standards must adapt as well. In response to recent concerns over a physical attack against the grid, the Federal Energy Regulatory Commission (FERC) on March 7, 2014 issued the order *Reliability Standards for Physical Security Measures* concerning reliability standards for physical security measures for critical infrastructure. The order directed the North American Electric Reliability Corporation (NERC) to submit to FERC for approval one or more Reliability Standards that will require transmission owners to perform a risk assessment to identify critical assets and then prepare security plans that demonstrate they have taken steps to address physical security risks and vulnerabilities related to the reliable operation of the Bulk-Power System. NERC is directed to submit the proposed Reliability Standards back to FERC within 90 days (June 5, 2014).

The recent action by FERC is the first step toward better protecting America's power grid from physical attacks. However, ITC believes more can be done to ensure our national grid can withstand any type of threat, whether from Mother Nature, a geomagnetic storm, cyber-attack or an electromagnetic pulse. As a company that invests heavily in the power grid, we view the following five pillars as essential to a comprehensive grid security policy.

Five Pillars: How to Build a More Secure Grid



1. A robust grid is the best line of defense against physical attacks and other events

The single most important factor that can protect the reliability of the bulk-power system against natural or man-made disruptions is the resiliency created when there is investment in a modern, robust grid that can withstand the loss of individual – or multiple – facilities. All parties should recognize that continued investment in modernizing and upgrading the grid is the best long-term solution to mitigating both the likelihood and the impact of physical and natural disruptions to the bulk-power system.

2. Development of standards must be coordinated with existing physical and cyber security policies

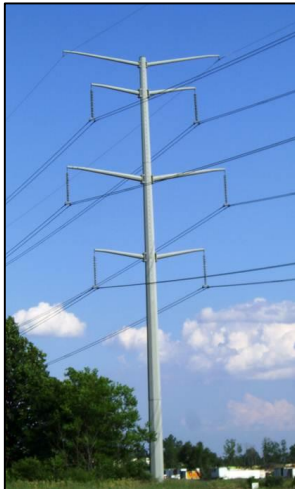
Development of physical security standards will not take place in a vacuum; other physical and cybersecurity initiatives are currently in various stages of implementation by various responsible entities. These new physical security standards must be developed in a coordinated manner to avoid duplicative, overlapping, or contradictory requirements. The obvious danger of contradictory reliability standards is clear, and ITC is confident that the standards development and rulemaking processes will include careful scrutiny to avoid conflicting standards. ITC and the industry have already invested significant financial resources and manpower in physical and cyber security programs and protection measures that align with the current and future enforceable CIP Standards.

3. Physical security requirements can enhance existing transmission planning standards for bulk-power system facilities

Additional security measures beyond those contemplated by the Physical Security Directive may be necessary in order to properly address physical security risks and vulnerabilities related to the overall reliable operation of the bulk-electric system. Given the need for rapid adoption and implementation of physical security protections, ITC recognizes that the scope of this directive includes only the most critical substations and control centers.

4. The Commission (FERC) should clearly state that verification of risk assessments and security plans establish compliance with these standards

As with any reliability standard, responsible entities require clear guidance on the exact extent of their responsibilities for compliance with the standard. The physical security standards promulgated in this docket should be no exception. Regardless of the final form of the standards developed, it is important for the Commission to clearly and unambiguously state that approval of critical facility risk assessments and physical security plans by the designated outside entity constitutes compliance with the standards requiring these assessments and plans.



5. The Commission should consider assigning responsibility for the Spare Transformer Equipment Program to NERC

While FERC's directive focuses on prevention of physical attacks on the grid, the issue of recovery from such attacks must also be addressed.. To that end, the Commission may want to use this opportunity to consider assigning NERC with the responsibility for the Spare Transformer Equipment Program, or otherwise create a NERC-administered program for maintaining a supply of operable spare major transmission facility parts. The ability to quickly and reliably provide responsible entities with replacement components can drastically reduce the recovery time from a physical, cyber, or weather-related critical event, particularly where these components require months or even years to obtain from manufacturers. While ITC commends the Edison Electric Institute for its creation and operation of the Spare Transformer Equipment Program, there are several factors that would make formalizing

such a program under NERC oversight a valuable tool in maintaining the reliable operation of the bulk-electric system.

About ITC Holdings Corp.

ITC Holdings Corp. (NYSE: ITC) is the nation's largest independent electric transmission company. Based in Novi, Michigan, ITC invests in the electric transmission grid to improve reliability, expand access to markets, lower the overall cost of delivered energy and allow new generating resources to interconnect to its transmission systems. ITC's regulated operating subsidiaries include ITC*Transmission*, Michigan Electric Transmission Company, ITC Midwest and ITC Great Plains. Through these subsidiaries, ITC owns and operates high-voltage transmission facilities in Michigan, Iowa, Minnesota, Illinois, Missouri, Kansas and Oklahoma, serving a combined peak load exceeding 26,000 megawatts along 15,000 circuit miles of transmission line. Through ITC Grid Development and its subsidiaries, the company also focuses on expansion in areas where significant transmission system improvements are needed. For more information, please visit www.itc-holdings.com.