Testimony of Gerry W. Cauley, President and Chief Executive Officer
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of the House Energy and Commerce Committee
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Introduction

Good morning Chairman Whitfield, Ranking Member Rush, members of the Subcommittee and fellow panelists. Thank you for the opportunity to testify concerning the May 7 *Energy Reliability and Security* discussion draft ("Discussion Draft"). My name is Gerry Cauley, and I am President and CEO of the North American Electric Reliability Corporation (NERC). We are a not-for-profit international regulatory authority whose mission is to assure the reliability of the bulk power system in North America. NERC's jurisdiction includes users, owners, and operators of the bulk power system, which serves more than 334 million people.

In 2007, NERC was designated the Electric Reliability Corporation (ERO) by the Federal Energy Regulatory Commission (FERC) in accordance with Section 215 of the Federal Power Act (FPA), enacted by the Energy Policy Act of 2005. NERC develops and enforces Reliability Standards; annually assesses seasonal and long-term reliability; monitors the bulk power system through system awareness; and educates, trains, and certifies industry personnel. Through the Electricity Sector Information Sharing and Analysis Center (ES-ISAC), NERC performs a critical role in real-time situational awareness and information sharing to protect the electricity industry's critical infrastructure against vulnerabilities. NERC's area of responsibility spans the continental United States, Canada, and the northern portion of Baja California, Mexico.

Overall, NERC appreciates the recognition of the role of the ERO and its inclusion in several key components of the draft legislation. NERC takes our responsibility for the reliability and security of the bulk power system seriously and appreciates the Committee's focus on these important topics.

My testimony today will address two sections of the Discussion Draft: 1) Section 1202, "Reliability Analysis for Certain Rules That Affect Electric Generating Facilities;" and 2) Section 1204, "Critical Electric Infrastructure Security." I am also prepared to address Section 1205, providing for a Strategic Transformer Reserve.

Reliability Assessment of Major Rules

Section 1202(b)(1) requires FERC in coordination with NERC as the ERO to conduct an independent reliability analysis of proposed and final major ($1 billion economic impact) rules that "may impact" electric generating units. This analysis, along with "any relevant special assessment or seasonal or long-term reliability assessment completed by the ERO" is to be published within 90 days of issuance of a proposed rule, and within 120 days of issuance of a final rule. As directed by Section 215(g) of the FPA, NERC conducts periodic assessments of the reliability and adequacy of the North American Bulk Power System. NERC also performs special assessments related to the reliability implications of major federal rulemakings, including proposed environmental rules such as the Clean Power Plan.

By identifying and analyzing emerging reliability issues, NERC is able to provide informed recommendations and support a learning environment for industry to pursue improved reliability performance. NERC's assessments also enable federal and state regulators and stakeholders to address reliability concerns as rules are developed. NERC's assessments, along with the associated technical analysis, help us improve resource and transmission planning methods, planning and operating guidelines, and NERC Reliability Standards.

Annually, NERC conducts both long-term and seasonal reliability assessments. The **Long-Term Reliability Assessment** reviews the adequacy of the Bulk Electric System in the United States and Canada over a 10-year period. This report projects electricity supply and demand, evaluates transmission system adequacy, and discusses key issues and trends that could affect reliability. The **Summer and Winter Assessments** consider the adequacy of electricity supplies in the United States and Canada for the upcoming summer and winter peak demand periods.

NERC also conducts **Special Assessments** on a regional, interregional, or interconnection-wide basis, as needed. For example, we recently published two reports concerning the potential reliability impacts of the Environmental Protection Agency's Clean Power Plan. In November 2014, NERC released its first CPP report, the *Initial Reliability Review,* which focused on the four "Building Block" assumptions in the proposed CPP. Last month, we issued the *Phase I* report, which reviews resource and transmission adequacy considerations of the proposed CPP. Further CPP reliability assessments are planned after the final CPP rule is issued this summer and as State Implementation Plans are developed. In 2010, NERC reviewed the cumulative

impacts of several pending EPA rulemakings, including hazardous air pollutants, cooling water intake, and coal waste rules. Other special assessments have reviewed gas/electric coordination, integration of variable energy resources, and geomagnetic disturbances.

NERC will continue to assess the reliability implications of changing federal policies as part of its general reliability assessments. Accordingly, NERC would be pleased to coordinate with FERC on reliability assessments of rules that pose real or potential challenges to resource adequacy or the reliability of the BPS. NERC offers two comments on the language of 1202(b) as drafted:

1. As written, the test for a rule that triggers a reliability analysis is very broad. Numerous major federal rules "may impact" an electric generating unit or units. NERC's expertise is focused on the reliability of the bulk power system, and we can most directly provide assistance on impact statements on rules that pose or could pose adverse reliability consequences.

2. The 90 days allowed for preparation of a reliability assessment on a proposed rule is very short. More time would be helpful to provide useful analysis. The 120 days allowed for analysis of a final rule may also be too short, but the final rule analysis can be built off prior analysis of the proposal and thus may be completed in the time frame provided, unless the final rule is significantly different from the proposed rule.

Grid Security – Emergency Authority and Critical Information Sharing (Section 1204)

Grid security is a core priority for NERC and industry. NERC has decades of experience working with industry and government to protect our shared infrastructure and is constantly reevaluating threats and taking steps to protect the system.

The nuclear power and electric industries are the only critical infrastructure sectors to have mandatory and comprehensive cybersecurity standards. FERC has recently approved NERC Critical Infrastructure Protection Version 5 standards (CIP) which become enforceable beginning on April 1, 2016, related to cyber security. The CIP Version 5 standards include new cybersecurity controls and extend the scope of the systems that the CIP Reliability Standards protect. Additionally, in November of last year, FERC issued Order No. 802 approving Reliability Standard CIP-014-1 – Physical Security. Under CIP-014-1, applicable entities are required to identify their critical facilities, evaluate the security risks and vulnerabilities to those identified facilities and implement measures to mitigate the risk of physical attack. CIP-014-1 has staggered enforcement dates with compliance obligations beginning on October 1, 2015.

Standards are one piece of this complex, dynamic, and comprehensive approach to grid security and reliability. NERC also operates the Electricity Subsector Information Sharing and Analysis Center (ES-ISAC) which provides situational awareness, incident management, coordination and communication capabilities within the Electricity Subsector through timely, reliable, and secure information exchange. The ES-ISAC issues alerts, advisories and recommendations pertaining to security matters and threat mitigation information. The ES-ISAC, in collaboration with the

Department of Energy and the Electricity Subsector Coordinating Council (ESCC), serves as the primary security communications channel for the Electricity Subsector and enhances the subsector's ability to prepare for and respond to cyber and physical threats, vulnerabilities and incidents.

In November of this year, NERC will conduct the third Grid Security Exercise ("GridEx III"), which includes sector-wide participants from the U.S., Mexico and Canada. This geographically distributed exercise was designed to execute the Electricity Subsector's crisis response to simulated coordinated cybersecurity and physical security threats and incidents, to strengthen utilities' crisis response functions and to provide input for lessons learned, engaging industry personnel and senior leadership. Finally, NERC uses other tools to fulfill this mission, including guidelines, training, assessments and alerts. This multi-pronged approach supports a secure and reliable bulk power system for North America.

While recognizing the robust and effective grid security protections already in place, NERC recognizes the need to address grid security emergencies as described by Section 1204. Specifically, Section 1204 would amend the FPA, providing the Secretary of Energy with authority to address the imminent danger of grid security emergencies. The discussion draft defines grid emergencies in a comprehensive manner, including a cyber or physical attack, electromagnetic pulse, or a geomagnetic storm event.

Prior to issuing an emergency order, Section 1204(b)(3) requires the Secretary of Energy to consult with the ERO (among others) to the extent practicable. We appreciate recognition of NERC's grid security role in the consultation process. By reference to the ERO, this consultation recognizes the expertise of the NERC for bulk power system reliability, and incorporates the information sharing capabilities of the ES-ISAC.

NERC is generally supportive of legislation clarifying federal government authority to address grid emergencies. It is important that the definition of a grid emergency be targeted to national, catastrophic instances and that such orders be limited in duration in order not to conflict with the system of alerts, advisories, and standards that are already in place to protect the grid on an ongoing basis.

Sharing of "Critical Electric Infrastructure Information"

Section 1204 would add FPA Section 215A(d) to protect and encourage voluntary sharing of Critical Electric Infrastructure Information (CEII). Section 215A(d)(1) protects CEII. And the regulations called for under Section 215A(d)(2)(A), (B), and (C) support appropriate labeling, handling, and management of this sensitive information. Together, these provisions would encourage information sharing.

Proposed Section 215A(d)(2)(D) directs FERC to provide standards authorizing voluntary sharing of critical electric infrastructure information with, between, and by the ERO, ISACs, and other entities.

As discussed above, NERC, federal and state governments and industry have numerous tools to facilitate robust information sharing. The ES-ISAC is a leading source for voluntary information sharing for many in the electricity subsector. In addition, NERC's current Critical Infrastructure Protection (CIP) standards, approved by FERC, provide for mandatory reporting of certain cyber information.

CIP Version 3 and CIP Version 5 (which will replace CIP Ver. 3 in 2016) are examples:

- NERC CIP-008-3 "ensures the identification, classification, response, and reporting of Cyber Security Incidents related to Critical Cyber Assets."
- Under requirement R1 of CIP-008-3, entities must develop a "Cyber Security Incident Response Plan." This plan must include, at a minimum:
    - A process for reporting Cyber Security Incidents to the ES-ISAC. Entities are required to report cyber security incidents to the ES-ISAC, which is linked directly to critical government agencies.
    - Procedures to characterize and classify events as Reportable Cyber Security Incidents.
    - Response actions, including roles and responsibilities of Cyber Security Incident response teams, Cyber Security Incident handling procedures, and communication plans.
    - A process for updating response plans, and testing and annual reviews of response plans at least annually.

Given these existing standards and the regulations provided by Section 215A(d)(2)(A), (B), and (C), Section 215(d)(2)(D) appears unnecessary and extends to numerous entities that already have procedures in place. This could potentially conflict with existing mandatory and enforceable standards, and existing critical information sharing mechanisms utilized by the ERO, regional entities and the ES-ISAC.

Further, the definition of "critical electric infrastructure" in proposed Section 215A is quite broad:

> "a system or asset, whether physical or virtual, used for the generation, transmission, or distribution of electric energy affecting interstate commerce, the incapacity or destruction of which would negatively affect national security, economic security, public health or safety, or any combination of such matters."

This goes beyond the definition of "cybersecurity incident" in Section 215 of the FPA which addresses devices and communication networks essential to the reliable operation of the bulk power system, which expressly does not include facilities used in local distribution.

The consequences of these different definitions need to be carefully assessed to ensure that existing federal and state programs and mechanisms are not adversely affected.

Information Sharing has also been the subject of legislation passed by House and Senate Committees applicable to all critical infrastructure. We support the goal of these efforts to improve information sharing. As noted in these bills and contemplated in this legislation, it is important that there be no conflict with or undermining of the existing information sharing mechanisms.

Conclusion

NERC appreciates the recognition this bill provides on several important topics related to reliability and security. As the international electric reliability organization, consultation with Canada and Mexico throughout the bill is an important recognition of the interconnected nature of our North American grid.

Thank you for the opportunity to address the subcommittee on these important topics. NERC stands ready to assist the Subcommittee in its efforts to improve the security and reliability of our nation's electricity system.