

June 19, 2015

The Honorable Ed Whitfield  
Chairman  
Subcommittee on Energy and Power  
House Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515-6115

Dear Chairman Whitfield:

Thank you for inviting the North American Electric Reliability Corporation to testify before the subcommittee on May 19, 2015, at the hearing entitled "Discussion Draft Addressing Energy Reliability and Security." We also appreciate the opportunity to respond to additional questions for the record. Our responses are included in the attachment.

Please let us know if we may be of further assistance.

Sincerely,



Gerry Cauley  
President and CEO

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy and Power

Attachment

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## Additional Questions for the Record

Responses to the Honorable Ed Whitfield from Gerry W. Cauley, President and CEO,  
North American Electric Reliability Corporation

### 1. How have NERC assessments of proposed rules helped inform changes incorporated into final rules?

Under the provisions of Section 215(g) of the Federal Power Act, NERC has conducted a wide range of technical assessments focused on evaluating the adequacy and reliability of the bulk power system, as well as identifying the potential reliability implications associated with major proposed environmental rules. These assessments form the foundation of expectations about anticipated changes affecting the bulk power system and are technology neutral, focused solely on the reliability implications and do not advocate a policy position in regard to the environmental objectives of proposed rules. These assessments reflect decades of reliability assessment expertise, performance data, inputs from various subject-matter experts, entity plans, and forecasts to formulate independent, credible findings and recommendations. These assessments help inform stakeholders and policymakers about reliability factors that need to be taken into consideration before a rule is finalized.

NERC recently analyzed the reliability dimensions of EPA proposals governing several potential U.S. environmental regulations, including cooling water intake structures, coal combustion residuals, and mercury and air toxic emissions.<sup>1,2</sup> These assessments provided EPA, various policy makers, and stakeholders with valuable insights concerning plant retirements, resource adequacy, reliability considerations, and timing challenges.

Changes to proposed rules have reflected the importance of electric reliability. A case example is embedded within EPA's final Mercury and Air Toxics Standard (MATS). NERC's assessment identified "timing" as the number one key finding, noting:

*Compliance deadlines will challenge the electric industry's planning horizons, existing planning processes and typical construction schedules. Transmission lines, power plants, and environmental control retrofits are often planned and constructed over a long period of time. Successful implementation of the proposed EPA rules will be highly dependent on the amount of time the industry will be given to comply with future environmental regulations and that tools are in place within a timely manner to support the industry's transition given the large number of units that must be retrofit.*

EPA's final rule provided two timing improvements: 1) adoption of a "reliability safety valve" provision to accommodate concerns with building infrastructure and retrofitting existing power plants to address the rule's timing requirements, and 2) EPA granted a nearly automatic one-year extension, and, for due cause, a second year to implement the required changes.

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<sup>1</sup> Potential Impacts of Future Environmental Regulations on the Bulk Power System: Extracted from the 2011 Long-Term Reliability Assessment

<http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA%20Section.pdf>

<sup>2</sup> 2010 Special Reliability Scenario Assessment: Resource Adequacy Impacts of Potential U.S. Environmental Regulations

[http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA\\_Scenario\\_Final\\_v2.pdf](http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA_Scenario_Final_v2.pdf)

An additional NERC analysis highlighted feasibility concerns with EPA's proposed regulation on cooling water intake structures. Cooling water intake operation and structures are regulated under Section 316(b) of Clean Water Act (CWA). NERC's integrated evaluation, which evaluated four proposed EPA regulations on a composite-basis, identified concerns with meeting the proposed rule due to physical limitations of existing technologies to meet the proposed entrainment and impingement requirements. NERC notes in its assessment:

*In its rule development, EPA had assumed this standard could be met by using modified traveling screens. However, some existing power plants that employ EPA's modified traveling screens technology have been unable to meet the proposed fish mortality standard. If the EPA does not include such an alternate technology standard in the final rule, IM compliance options would be severely limited at some plants and may require significant intake structure retrofits to meet the intake velocity of no greater than 0.5 feet per second. Should this not be available to a plant, the EPA-proposed strict fish IM standard may effectively force recirculating cooling water systems options independent of the site specific BTA entrainment standard.*

EPA's final rule provided more flexibility. Permitting authorities have discretion on the types of technology used based on site-specific studies. Owners or operators of facilities will also be able to choose one of seven options for meeting best technology available requirements for reducing impingement. State permitting authorities also factor in reliability as one of nine factors in their determination of technology usage. This flexibility allows power plants to remain online and provides market certainty as a long-term resource.

Many stakeholders provide input to EPA on proposed rules reflecting NERC's reliability assessment topics. Overall, NERC's assessments have provided a sound technical baseline for reliability that regulatory and policy stakeholders as well as those entities responsible for associated changes to the resource, transmission, and operations of the bulk power system can depend on. As an independent voice for reliability, NERC's assessments provide helpful guidance to regulators and policymakers to assure reliability is maintained regardless of changes that occur on the bulk power system.

**2. In discussing the discussion draft's emergency response section, NERC's standards process has been described by some as too slow. Is this the case?**

As noted in my testimony, standards are one piece of NERC's complex, dynamic, and comprehensive approach to grid security and reliability that includes not only standards but a wide range of reliability tools such as alerts, advisories and guidelines that serve to enhance reliability and mitigate risks. NERC's ES-ISAC is our primary information sharing entity that daily provides secure and efficient communication directly to industry about threats and vulnerabilities to the grid. In an emergency, it is unlikely that one would issue a mandatory NERC standard. NERC would utilize the ES-ISAC and other tools to communicate directly and immediately with industry in the case of an emergency.

In response to the general comment that our standards process is too slow, this is outdated information. As the ERO has gained more experience, we have made a number of improvements which have significantly reduced the time it takes to develop a standard. With these improvements, the average time to develop standards has been reduced to less than a year. For example, NERC worked with industry and others to develop a standard to address physical security requirements in less than 90 days, ahead of the deadline set by FERC. FERC's review and approval of this standard took more than 150 days. While there are a few standards that may take longer than a year to finalize, this is due to

their complex technical nature. Considerable input from industry subject matter experts, industry stakeholders, state regulators, consumer representatives and FERC all work together to ensure that mandatory and enforceable standards are effective and properly focused for the more than 1,400 different entities in North America that must comply with these standards.