

**Reliability Technical Conference**  
**Written Comments of David Boguslawski**  
**On behalf of the Edison Electric Institute**

Good morning Chairman Bay, commissioners, staff, and fellow panelists. I am David Boguslawski, Vice President for Transmission Strategy and Operations at Eversource Energy, formerly known as Northeast Utilities. I am here this morning representing the Edison Electric Institute and its member companies. EEI appreciates the Commission's continued strong interest in bulk power system reliability issues, and welcomes the opportunity to participate in today's technical conference.

EEI supports the findings and conclusions of the 2014 and 2015 NERC State of Reliability reports. As the reports indicate, various metrics continue to show positive trends and high levels of bulk power system reliability, and events and disturbances on the system continue to be largely driven by extreme weather.

Both reports place an important emphasis on system protection and substation equipment. As you know, bulk power system protection involves very complex designs to ensure that facilities properly isolate themselves whenever faults are detected. When performing as designed and planned, the isolation of generation and transmission facilities is critical for preventing severe damage or loss of facilities, and preventing potential more widespread cascading outages. The electric industry relies on very specialized technical professionals to develop and implement system protection designs which must effectively coordinate with surrounding local designs and operate under a wide range of local system conditions.

EEI understands that NERC technical committees have several projects underway to examine system protection issues. These projects involve data collection,

analysis, and forensic examinations that would inform recommendations to address identified patterns, or specific gaps or problem areas. Depending on the outcomes, recommendations could involve elements of Commission-approved mandatory NERC standards. EEI also understands that the North American Transmission Forum (NATF) is focused on system protection. EEI strongly encourages NERC and NATF to coordinate their areas of focus and their specific activities. Each organization has an important role, NERC for standards, compliance, and enforcement, and NATF for identifying best practices and performing peer reviews.

As for longer term strategic reliability matters, EEI and member companies offer three critical issues today that deserve very careful and continuing examination:

1. The Changing Resource Mix

The Commission has a strong understanding of the policy and technical issues associated with the shift to natural gas and renewable energy and away from base load coal, and developed an extensive record in the recent 111(d) conferences. In addition, the processes for transmission planning and investment taking place under Order No. 1000 also are intended to provide strong support for achieving reliability objectives, and the rising challenges caused by the significant resource shift now underway.

Going forward, EEI continues to support the NERC reliability assessment program to thoroughly examine long-term and seasonal reliability conditions, and to identify potential challenges or gaps. While our member companies participate in developing the regional assessments, it is critically important that NERC maintain a strong and independent role for the assessment program.

EEI also supports the work that NERC has underway to examine essential reliability services (ERS) needed to ensure that the bulk power system can support the changing resource mix with reactive power, frequency and voltage support, and reserves and generator ramping. Given the size and speed of the anticipated changes, even over the next five years, the Commission should seek to ensure

that ERS planning analyses and NERC analytics take place in a timely and efficient manner.

EI appreciates the recent letter sent by the commissioners to Janet McCabe, EPA Acting Assistant Administrator for Air and Radiation, regarding how the Commission would seek to conduct its work and coordinate with EPA under 111(d) guidelines. That letter describes the Commission vision for implementing a Reliability Monitoring and Assistance process (RMA) and a Reliability Safety Valve (RSV). A successful RMA process will help ensure that States, utilities, and the Commission have a clear and complete outlook across the planning horizon.

## 2. CIP and Cybersecurity

EI and its member companies strongly believe that the CIP V.5 mandatory standards provide a durable framework for the protection of BPS assets. Given the magnitude of the changes required, asset owners and operators have started to implement plans to ensure full compliance by April 2016. For many companies with larger sets of assets under management, activities have moved beyond the field assessment and design stage into full field implementation. Procurement, field installation and testing, procedure writing, and training are well underway to ensure that companies effectively map their actions to an entirely new NERC set of compliance requirements. This involves companies testing against their compliance monitoring internal processes and controls to ensure that complete and accurate compliance documentation is in place.

It is very important as a strategic matter for FERC to maintain emphasis on the results-based framework for these standards as this framework helps ensure that asset owners and operators have flexibility to quickly address new or evolving types of cyber threats. This risk-based framework also allows the Commission to avoid having to address the broad range of specific new or evolving cyber or physical security challenges, and instead rightly focuses asset owners and operators on the results we are collectively trying to achieve.

To ensure that the V.5 framework does not include gaps or overlaps, the Commission should proactively ensure that both NERC and the regions systematically examine patterns of compliance issues, and regularly compile and report broadly to stakeholders. Such reporting will offer not only significant insights for the periodic review of the V.5 standards, but also more specific understanding of regional compliance process consistency. This area may also offer another opportunity for cooperation between NERC and NATF, where both organizations have processes in place.

As a policy matter, and especially for cyber and physical security, it is also very important for the Commission to clarify that it does not expect the NERC mandatory standards to address emergency conditions. In making this clarification, the Commission should seek to ensure that NERC and the electric industry have in place various processes and procedures that address such conditions, including the ability to very quickly coordinate with federal agencies, and that those processes are well understood and practiced through tests and drills with the relevant agencies.

Finally, EEI understands that considerable resiliency discussions are taking place across the country. In broad terms, electric system resiliency covers the responses to an event or disturbance. While the issues vary by geography and topology, and apply to local distribution networks, discussions also involve the bulk power system. Examples include extreme weather events such as hurricanes, tornadoes, and ice storms, as well as physical or cybersecurity events.

The electric industry has a long history of meeting the broad range of resiliency challenges. Companies' emergency response programs have evolved and strengthened, tailored to the needs, and facts and circumstances of their historical experiences. Companies have well-established programs to work closely with state and local agencies.

NERC appropriately has recognized challenges associated with extreme events affecting the bulk power system beyond company borders and started the GridEx

drills. The drills are time well spent and great examples of how NERC can help all of us through collaboration and training.

For the bulk power system, attention has focused on planning and management of critical spare equipment. EEI has taken a proactive approach to the issues, creating the Spare Transformer Equipment Program (STEP), which received Commission approval in 2006. Last year, EEI created Spare Connect, a database-driven information sharing tool. Currently, EEI is working with member company CEOs to discuss strategic transformer transportation issues.

While EEI does not envision the need for new mandatory reliability standards at this time, the Commission should continue to carefully monitor the range of bulk power system challenges that might take place, and the programs and tools available to address the challenges. Identifying the risks and the methods for managing those risks will require continued discussion with the electric industry. The Commission also should seek to ensure that the electric industry activities minimize duplication and overlap. Again, NERC and NATF have important roles that need coordination. EEI-sponsored activities continue evolving as well.

### 3. NERC's Focus On Its Core Program Areas

Given the size, speed, and complexity of changes now increasing across the electric industry, EEI strongly believes that now more than ever the Commission needs to seek to ensure that NERC hold to a strong focus on its core program areas, i.e., standards development, compliance and enforcement, and reliability assessment.

EEI strongly supports NERC's use of risk-based approaches to help all of us focus our precious resources on the work that matters most to ensure reliability.

Recent work of the Reliability Issues Steering Committee (RISC) has provided significant insights on setting appropriate corporate strategic focus, including setting priorities for standards development. NERC RISC has set forth an important roadmap to assist NERC decision making, not only on the projects and

initiatives that can be accelerated, but also on those that can be deferred or cancelled.

Examples of NERC initiatives that could be reconsidered are the NERC spare equipment database which may duplicate other activities already underway and NERC's analyses of weather patterns which is work already performed by a broad range of public and private entities. Existing or proposed resiliency-related activities should also be reconsidered, especially if they do not align with NERC RISC recommendations, lack a clear mission statement, goals, and specifically assigned resources, and are already being addressed completely by existing emergency response structures and processes across the country. As previously stated, asset owners and operators work closely through state and local emergency management programs which are already in place.

Finally, companies' subject matter experts increasingly report a significant amount of NERC process exhaustion. Standards development, compliance engagements, and volunteer work on committees and task forces, while all contributing in some manner to the overall success of the broad mission, collectively require a significant amount of time and resources. A quick glance at the websites of NERC and the regions shows an enormous array of committees, subcommittees, and task forces. My company's subject matter experts spend considerable time ensuring that we comply with the existing standards and prepare for those that are under development.

The Commission, NERC, the regions, and the industry have recently improved the focus onto matters that truly affect reliability by eliminating unnecessary requirements, moving to results-based standards, and beginning to move towards a more streamlined compliance process. But more needs to be done here. Now more than ever, the Commission should seek to ensure that NERC and the regions execute their core programs in the most effective and efficient manner, and provide strong value in return for the resources available to them.

Thank you again for the opportunity to participate in today's conference. I look forward to questions and discussion.