

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Reliability Technical Conference

Docket No. AD18-11-000

**WRITTEN STATEMENT OF TIMOTHY R. GALLAGHER,  
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Chairman McIntyre, Commissioners, staff, and fellow panelists, on behalf of ReliabilityFirst Corporation (ReliabilityFirst), I appreciate the opportunity to participate in today's conference to discuss policy issues related to the reliability of the Bulk Electric System. My name is Tim Gallagher and I am the President and CEO of ReliabilityFirst. ReliabilityFirst is one of seven Commission-approved Regional Entities (Regions) that support the North American Electric Reliability Corporation (NERC) in its role as the Electric Reliability Organization. The ReliabilityFirst footprint includes the Great Lakes and Mid-Atlantic areas of the United States, and consists of all or portions of Delaware, New Jersey, Pennsylvania, Maryland, Virginia, Illinois, Wisconsin, Indiana, Ohio, Michigan, Kentucky, West Virginia, Tennessee, and the District of Columbia. I also have the honor of serving on the ERO Enterprise's Executive Management Group (EMG), as the lead representative for all of the Presidents & CEOs for the Regions.

During my participation on this panel, I will focus my comments and provide a regional perspective on three Commission topics:

- The ERO Enterprise's top priorities for the next one to three years, and the trends and risks identified in the recently issued 2018 State of Reliability Report that warrant the most attention and effort at this time;

- How the ERO Enterprise model has evolved and can be further improved, including: (1) lessons drawn from the experiences of the Regions on the effectiveness of the ERO Enterprise and how it can adapt to further improve reliability and security and (2) the results and implications of NERC’s benchmarking of grid reliability and NERC performance; and
- The status of NERC’s Standards Efficiency Review, and how the effort will contribute to reliability moving forward.

**A. ERO Enterprise Priorities and Key Trends**

I am pleased to share that NERC and the Regions, collectively known as the ERO Enterprise, are more cohesive than ever in both our risk-based approach and our shared priorities within this construct. As to our risk-based approach, it is important to understand the significant progress that the ERO Enterprise has made over the past few years. We have made real and significant progress in our effort to shift away being a zero tolerance “check-the-box” regulator, toward being a value-adding, risk-based organization. A great example of this progress is our collective work to develop and implement a uniform, risk-based compliance monitoring and enforcement program.

We now scope our monitoring engagements utilizing tools such as the Regional Risk Assessment and the entity specific Inherent Risk Assessment. This enables us to ensure that we are focusing both our and industry resources on those risks that are the most important. The same dynamic, risk-based approach holds true for enforcement, where we now utilize tools such as Compliance Exceptions to resolve lesser risk issues, and Notices of Penalty to address higher risk issues that require more complex mitigation and may warrant monetary penalties or sanctions. And this effort is delivering reliability and security-enhancing results. It has enabled

us to be more dynamic and targeted in our monitoring engagements, to ensure programs are in place to address risks in an adequate and sustainable manner. Likewise, it has enabled enforcement to ensure that our actions are aligned with our message and that we deploy our resources and tools commensurate with the risk being addressed.

As we have developed and implemented these risk-based programs, NERC and the Regions have taken equal care to drive uniformity across our programs and ensure consistency in implementation and results (i.e., substantially similar facts and circumstances result in substantially similar resolutions). These efforts include, among other things, uniform auditor and enforcement training and manuals and a consistency reporting tool (allowing entities to inform the ERO Enterprise of perceived program or implementation inconsistencies).

Effective interregional and international collaboration is of course key to ensuring alignment of the reliability efforts throughout the interconnected North American bulk power system and our overall success as a risk-based ERO Enterprise. Some examples of this collaboration include regional entity working groups and the Multi-Regional Registered Entity (MRRE) Coordinated Oversight program, where entities registered in more than one Region have one lead Region as a single point of contact, and the lead Region coordinates with the other Regions behind the scenes. This program helps facilitate a collaborative and coordinated risk-based focus among the Regions, while also ensuring efficient, consistent, and uniform communication channels and program implementation for the entities. The Regions also regularly share new approaches and best practices, and help each other address key reliability and security challenges. For instance, ReliabilityFirst recently had the opportunity to collaborate with and assist WECC in WECC's ongoing effort to evaluate, analyze, and understand the potential reliability implications of establishing multiple new Reliability Coordinators in the

western interconnection. Through this collaborative effort, ReliabilityFirst was able to share with WECC lessons learned, best practices, and other relevant experiences that it has developed and observed in its role as the lead Region for two of the largest Reliability Coordinators in North America, MISO and PJM.

This brings us to our shared priorities, all of which are shaped and developed within our risk-based construct. The Regions support and share the ERO-wide risk priorities identified in the 2018 State of Reliability Report. It is important to note, however, that the levels of certain reliability or security risks vary across the Regions because each Region has unique geographic, electrical, and load configurations.

As such, it is fundamental for Regions to focus their work within these aligned priorities on those risks that are most impactful across their respective footprints. For example, in the ReliabilityFirst footprint, we are particularly focused on the following risk areas discussed in the 2018 State of Reliability Report: (a) the changing resource mix; (b) common failure modes; (c) cyber and physical security; and (d) grid resilience.

Regarding the changing resource mix, we are seeing retirements of coal and nuclear generation and a significant transition to natural gas generation in the ReliabilityFirst footprint. We are also focused on common failure modes (situations where one event or contingency can have sweeping implications for reliability and security). For instance, if natural gas pipelines go out of service, this can have a ripple effect and impact operations at natural gas generators across our footprint. NERC and the Regions will continue to play a key role in studying, understanding, and communicating the reliability impacts associated with these changes.

Cyber and physical security remain a major area of focus in our Region, and across the entire ERO Enterprise. We have seen many successes with enhanced security postures and the implementation of sustainable CIP programs across our footprint and the rest of the ERO Enterprise. However, we also still see growing pains in this area, which are attributable to the ongoing maturation and nature of the CIP standards, the constantly evolving state of technology, and ever-changing threat vectors. We are also focused on resilience. Resilience involves the need to anticipate, withstand, recover and adapt to events that occur on the system. While this topic has generated a great deal of discussion lately, resilience is something that NERC and the Regions have focused on since our inception. We support the Commission's effort to ensure that there is a common understanding of what resiliency means, what it requires, and that it remains a priority.

**B. How the ERO Enterprise Has Evolved and How It Can Be Further Improved**

In light of the risk priorities I just discussed, the ERO Enterprise must be a dynamic risk-based regulator that uses all available tools to positively impact these pressing reliability and security challenges. This means that we must use both reactive and proactive approaches. As previously discussed, NERC and the Regions have significantly matured our ability to be a reactive risk-based regulator (e.g., the ability to develop standards to address known risks, monitor and enforce point-in-time compliance with those standards, and perform event analysis after events).

For example, in the enforcement context, a variety of tools are deployed to help turnaround entities that are struggling with insufficient security programs. Although significant fines are necessary at times to deter undesired behavior, they do not, in and of themselves, ensure sustainable reliability and security results. Accordingly, regional enforcement teams and subject

matter experts work collaboratively with entities facing implementation challenges to ensure they understand and address cultural, governance, and other programmatic barriers to reliability and security. The Regions also implement spot checks, targeted self-certifications, and mandatory performance updates, to verify that these efforts were successful and the resultant programs are sustainable. Entities are encouraged to utilize the mitigation space to go above-and-beyond baseline compliance, and implement significant reliability enhancements to their systems, programs, and tools. I am pleased to report that these efforts have resulted in bottom quartile performers in the ReliabilityFirst footprint ascending to top quartile performance, and then sharing their stories and lessons learned to help other entities mature. NERC and the Regions are committed to continuing to implement these dynamic and value-adding approaches.

While this reactive risk-based work is critical and has been very successful, it can only occur after an entity is already facing challenges and is necessarily tailored around helping that specific entity resolve its specific challenges. It is also important to understand that permanent standards should not be utilized to address every risk, given that risks vary in applicability, complexity, root cause, and duration. Stated differently, certain risks can more easily be addressed through collaboration and mitigation verification, rather than going through the entire standards process and instituting a permanent standard to address a more transient and narrow risk.

As a result, the next logical step is for the ERO Enterprise to mature our proactive capabilities and performance. This means further developing data analytics, trending, and risk communication capabilities in order to proactively identify, analyze, and communicate challenges and potential solutions to those challenges before they occur. NERC and the Regions have made significant strides in this effort and are already seeing positive results.

Specifically, ReliabilityFirst has been working to reduce the misoperation rate in our footprint for quite some time. Previously, ReliabilityFirst's efforts focused on utilizing reactive tools, such as monitoring, enforcement, and events analysis. This work had a limited impact on reducing the misoperation rate given the varying nature of misoperations and the voluminous number of assets involved. Consequently, we are now focusing on deeper data analytics, trending, and proactively communicating and partnering with our entities to address this challenge outside of the traditional compliance monitoring and enforcement space. This work includes training and education, assist visits, maturity model evaluations, and shared data analytics, which enables ReliabilityFirst and entities with higher misoperation rates to better identify and predict root causes and develop pragmatic approaches to address them. While there is necessarily a result latency when dealing with misoperations, this work has already helped influence a statistically significant reduction in misoperations in our footprint.<sup>1</sup>

We have taken a similar approach in the cyber security context by partnering with SERC and WECC to analyze data and better understand cultural and programmatic trends that create barriers to sustainable CIP programs. These trends are summarized in the recently issued 2018 CIP Themes Report,<sup>2</sup> which includes input from entities across these three Regions and shares prevention and mitigation strategies to help entities assess and strengthen their CIP programs and mitigate security risks. We are now in the process of proactively communicating these trends to industry through workshops, webinars, newsletters, assist visits, and other engagements to drive awareness and allow entities to proactively self-assess and address these themes.

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<sup>1</sup> See, [NERC 2018 State of Reliability Report](#), p. 21, 165.

<sup>2</sup> See, [2018 CIP Themes Report](#).

In short, it is important to understand the need to be proactive with all the organizational levels within our entities in order to address the ever-changing reliability and security challenges facing our industry. ReliabilityFirst has achieved success in facilitating this engagement through our assist visit program. Assist visits, which are voluntary and tailored education and training engagements, address everything from cultural and governance challenges at the leadership level; to program implementation and sustainability challenges at the mid-management level; to configuration, software, hardware, and tool challenges at the technical level. I have also established a proactive communication channel with the CEOs in the ReliabilityFirst footprint to ensure they have direct awareness of the key reliability and security risks in the ReliabilityFirst footprint and ongoing efforts to address those risks. This in turn enables the CEOs to have substantive conversations with their teams and set the appropriate tone at the top.

The Regions are uniquely situated to meaningfully perform these outreach, education, and training activities. This is due to our experience, expertise, and the data we have accumulated and developed for more than a decade, through directly engaging with and performing thousands of reliability and security engagements with every size and type of entity impacting the reliability of the Bulk Electric System. As a result, the Regions are able to meaningfully benchmark similarly situated entities with each other and share associated data and lessons learned to enable entities to better understand challenges and the associated risks, as well as proven methods to address those same challenges.

The entire ERO Enterprise is committed to continuing to mature our ability to predict and proactively identify emerging risks, better understand root causes and perform trending through data analytics, and proactively communicate risks and mitigation approaches to industry. We are likewise committed to utilize all of our tools (both reactive and proactive) to best, and most

efficiently, influence and drive the continuous improvement of the reliability and security of the Bulk Electric System.

**C. Status of NERC's Standard Efficiency Review, and How it Will Contribute to Reliability**

All the Regions support NERC's Standard Efficiency Review project and its focus on reviewing the effectiveness of the Reliability Standards. Any initiative focused on continuous improvement and ensuring that the ERO Enterprise and registered entities are deploying our collective and finite resources in the most effective, efficient, and cost-conscious manner is a priority.

This necessarily involves periodically evaluating whether certain regulatory tools (in this particular case, certain standards) are the most effective tool to address a given risk and are appropriately flexible and/or tailored to do so. If a certain tool is no longer the most effective and efficient way to address a risk, we should: (1) work to enhance the tool, (2) if not feasible, retire it and focus on piloting, testing, and deploying new, better tools to address the risk, or (3) recognize the risk is no longer valid and simply retire the tool without replacement. As you are aware, the Regions are on the front lines of reliability in our day-to-day compliance monitoring and enforcement activities. As a result, we are in an ideal position and are committed to using our experience and expertise to provide feedback on refreshing the standards where appropriate and enhancing the ERO Enterprise's reliability and security toolkit.

This concludes my remarks. Thank you.