

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

Reliability Technical Conference

) **Docket No. AD15-7-000**

**Prepared Statement of
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Berkshire Hathaway Energy Company**

I. Introduction

Berkshire Hathaway Energy Company (BHE)¹ submits this written statement in conjunction with the Commission's June 4, 2015 technical conference panel discussion of Electric Reliability Organization performance and initiatives. On behalf of our employees, we appreciate the Federal Energy Regulatory Commission (Commission)'s continued strong interest in bulk power system reliability issues, and welcome the opportunity to participate in today's technical conference.

II. ERO Performance and Initiatives

A. NERC's Risk-Based Compliance Monitoring and Enforcement Program

The Commission asks several questions on the North American Electric Reliability Corporation (NERC)'s movement toward risk-based compliance and enforcement. BHE's three commission-regulated utility companies have all been engaged in a broad range of activities to understand, plan, and manage various NERC compliance and enforcement process changes, both externally with the regions, and internally as well. While BHE strongly supports the movement as a much-needed initiative to align the costs and benefits of the NERC compliance monitoring and enforcement program, at this time it is premature to draw any meaningful conclusions as to the effectiveness of the changes and, in particular, whether BHE and the broader electric industry may have experienced any resulting efficiency gains.

We believe it will take a few years for NERC to measure the success of the initiative. In the interim, BHE will monitor and evaluate the initiative's overall performance against several success metrics, including whether (1) NERC establishes transparent and consistently applied methods for companies like BHE doing business in multiple regions; (2) compliance personnel

¹ Berkshire Hathaway Energy Company, based in Des Moines, Iowa, is a global energy services provider that serves more than 11.4 million electric and natural gas customers and end users worldwide. BHE's comments reflect its relatively unique position and broad perspective as a diversified public utility holding company whose U.S. commission-regulated utility interests operate in the Eastern, Western, and ERCOT Interconnections and U.S. subsidiaries are registered in seven of the eight North American Electric Reliability Corporation regions. BHE's vertically-integrated public utilities MidAmerican Energy Company, NV Energy, Inc., and PacifiCorp serve more than 5 million electric customers in 11 Midwestern and Western states.

in the regions undergo significant training and retraining in order to improve consistent compliance engagements; and (3) our subject matter experts convey to company management a clear sense of sustained reduction in the amount of time needed to prepare for and engage compliance-related processes. Overall, for the initiative to truly succeed, BHE expects a significant reduction to occur in the number of inconsequential administrative-type enforcement matters that are not tied to events or disturbances, or to reliability issues that NERC defines as matters requiring high priority attention across the bulk power system. Similarly, if implemented correctly, this initiative should also lead NERC and the regions to reduce the time and other resources dedicated to compliance and enforcement, and as a result, to experience declining program budgets.

BHE strongly supports the compliance processes and procedures developed to date by the Midwest Reliability Organization (MRO) and view them as offering a successful template for use by other regions. Based on the experience of BHE's MidAmerican Energy Company utility, MRO has developed and implemented an efficient compliance and enforcement approach that couples strong and independent compliance oversight with efficient process management. Registered Entities and the MRO are focusing on the higher risk-related items and their impact to the bulk electric system (BES) rather than chasing down insignificant and bureaucratic violations. Most recently, Registered Entities in the region have experienced a shift from a general review of NERC standards to a quarterly review of a smaller set of targeted NERC standard requirements that correlate well with the NERC 2015 Risk Elements Guide. If regions are allowed to exercise more discretion with the risk-based approach, mandatory three year reviews could be less burdensome. Furthermore, some companies have been selected by their regions to participate in the self-logging program to self-identify, assess, and mitigate instances of minimal noncompliance risk, and to maintain a log of such items. If implemented correctly, this program could reduce compliance labor and costs for both the regions and entities versus the more formal self-report process.

B. Feedback Loop for Standards

While BHE's NV Energy utility has participated in the event analysis process with NERC, we have yet to gain a meaningful appreciation for the processes or procedures that would fall under a structured feedback loop. Such understanding is the key to the electric industry becoming more meaningfully engaged in this area. We envision that the enhanced periodic standards review process will be very helpful in this regard.

BHE also envisions that compliance and enforcement metrics should provide a strong basis for feedback. Patterns of enforcement issues might inform discussions in the periodic review processes on the nature and extent of potential reliability gaps, or areas where the language of certain requirements might be modified to clarify performance expectations. These metrics should also inform analyses of regional consistency in compliance and enforcement.

In terms of standards development projects, the 2011 Southwest outage event has influenced considerable discussion on system monitoring and real-time tools issues, which will inform a standards project to begin later this year. In addition, the revised TOP/IRO standards pending in Docket No. RM13-12-000 et al. have involved considerable discussion and debate among various stakeholder groups.

The CIP V.5 transition offers a compelling example of the current state of feedback loops at NERC. Our MidAmerican Energy Company utility has been extensively involved in these transition activities. Since early 2014, we have made significant good faith efforts to engage the development of various compliance guidance development processes. These processes have produced a significant amount of useful information for all companies.

However, the compliance guidance discussions have resulted in some basic disagreements on the purpose, intent, and meaning of a few Commission-approved requirements. BHE may support an initiative to seek changes to this language through the NERC standards development process.

C. ESCC and ES-ISAC

The Electricity Sub-sector Coordinating Council (ESCC), as structured, is an excellent example of public-private coordination. Furthermore, through the technology transfer of government technologies, development of crisis action plans, exercise, and high-level discussions, the ESCC has helped to enhanced BES security. Many utility senior executives are fully engaged and work through the ESCC on identifying improvements and efficiencies in the areas of physical and cyber security. For example, our MidAmerican Energy Company utility held a transformer transport security tabletop exercise earlier this year to determine strategies to reduce security risk in the movement of spare transformers. Substation engineering and the corporate security team walked through the steps in an actual move, using a Metcalf Substation-like security scenario. Numerous follow-up issues were noted, including government coordination and strategies for site security during the movement in elevated threat environments. The lessons learned from this exercise are being shared across BHE to our PacifiCorp and NV Energy utilities, as well as with the wider industry.

Additionally, BHE's three U.S. utilities MidAmerican Energy, NV Energy and PacifiCorp have also all participated in energy-specific threat briefings with federal and state law enforcement partners in the last month. The ESCC championing of law enforcement fusion centers as a key way to create threat awareness is an element BHE is fully implementing. We have also involved various government agencies as participants in our crisis management drills. Sharing of cyber and physical security threat and vulnerability information is critical to the risk management processes of the electric industry and thus BHE supports a strong and effective ES-ISAC. In our experience, the ES-ISAC has not been particularly effective in quickly identifying and disseminating information to the industry. Overcoming this challenge and strengthening the

effectiveness of information sharing requires strong collaborative efforts to identify, understand, and clarify the role of the ES-ISAC.

BHE strongly supports the strategic review now taking place under the sponsorship of the ESCC and expects outcomes to include a strategy to increase the engagement of the sub-sector with the ES-ISAC. We envision that the capabilities and performance of the ES-ISAC will improve to become a more effective and trusted program. Initial findings and recommendations of the strategic review will be shared at the ESCC meeting on June 15.

D. Geomagnetic Disturbances

Our MidAmerican Energy utility participates in the Electric Power Research Institute (EPRI) sunburst program and has installed one ground induced current (GIC) monitor and plans to add a second GIC monitor on its transmission system. It also plans to add a magnetometer at a third site. This new magnetometer will be the first EPRI installed device of this type in Iowa. The Iowa State University Electric Power Research Center will be conducting a research and development project in collaboration with MidAmerican Energy and others to analyze data from the magnetometer and the utility's two GIC monitors and potentially from other existing sources. As a result, the data and information on earth-surface magnetic fields will be available to better understand geomagnetic disturbance impacts.

III. Conclusion

In closing, BHE thanks the Commission for holding this important Technical Conference and looks forward to answering questions on ERO performance and initiatives.