

MEMORANDUM

TO: Roy Thilly, Chair
NERC Board of Trustees

FROM: Carol Chinn
William J. Gallagher
Roy Jones
John Twitty

DATE: January 23, 2019

SUBJECT: Response to Request for Policy Input to NERC Board of Trustees

The Sector 2 and 5 members of the NERC Member Representatives Committee (MRC), representing State/Municipal and Transmission Dependent Utilities (SM-TDUs), appreciate the opportunity to respond to your letter dated January 3, 2019 to Mr. Jason Marshall, Chair of the MRC that invited MRC member sectors to provide input on items: 2019 ERO Enterprise Dashboard and ERO Performance Objectives and a possible special reliability assessment on integration of battery storage. The SM-TDUs also bring attention to cloud services. We look forward to discussing these items, along with the balance of the agenda package scheduled for distribution before the upcoming meetings of the Board of Trustees (BOT), Board committees, and the MRC, on February 6-7, 2019 in Manhattan Beach, California.

Summary of Comments

➤ **2019 ERO Enterprise Dashboard and ERO Performance Objectives**

- SM-TDUs appreciate the ERO updates to the 2019 Dashboard and Objectives that address NERC priorities. One recommendation would be to add regional measures to some Dashboard metric presentations. In addition, more detail is needed on some metrics to make them actionable.

➤ **Special Reliability Assessment on Integration of Battery Storage**

- Generally, SM-TDUs do not see battery storage as a priority reliability risk. Importantly, the technology and its operation are changing and often regional. Therefore, we believe an assessment of battery storage is premature and does not have the same relevance in all regions.

➤ **Cloud Services**

- Registered entities need to be able to utilize cloud services as part of their reliability and security programs. SM-TDUs encourage NERC to work with stakeholders to facilitate registered entities' use of cloud services.

SM-TDUs Policy Input

The SM-TDUs appreciate the Board's continued commitment to seek policy input from the MRC in advance of the quarterly Board and MRC meetings. The following are the views of the SM-TDUs regarding the issues and associated questions raised in the Board's letter and one additional item.

Item 1: 2019 ERO Enterprise Dashboard and ERO Performance Objectives

Dashboard

The SM-TDUs believe the ERO Enterprise Dashboard encompasses material BPS reliability and security measures. In doing so, the Dashboard covers the highest priority activities. The SM-TDU sectors appreciate NERC addressing the comments on the dashboard and performance objectives from last October. In the context of furthering those efforts, public power offers the following policy observations. Additionally, the SM-TDUs provide more detailed observations and questions in the attached addendum.

ERO-wide metrics provide useful information on North American reliability. SM-TDUs believe metrics from each region would provide further insight and recommend that the ERO consider adding relevant regional results where appropriate. Each region has different topology and reliability concerns. Therefore, having regional breakdowns can provide further insight and better target those areas where mitigation is needed. An ERO-wide view, absent a regional breakdown, masks relevant region-specific issues, that could prevent actionable mitigation efforts. Currently, only Metric 3 looks at an issue on a regional basis. SM-TDUs believe that it would be beneficial to have more metrics with regional comparisons.

While SM-TDUs believe the metrics cover priorities, in some cases the presentation does not tell a full story that stakeholders can draw actionable conclusions from. Therefore, beyond the dashboard metrics there is a need for a presentation with sufficient explanation and background.

Performance Objectives

SM-TDU believe the current ERO Performance Objectives outline some of the higher priority activities for the ERO Enterprise to address in 2019. Generally, organizing the objectives with an emphasis on risk makes the annual plan easier to review and digest.

SM-TDUs support and appreciate NERC efforts on the Standards Efficiency Review with respect to phase I and II. Additionally, public power appreciates the inclusion of the Critical Infrastructure Protection (CIP) standards in the Standards Efficiency Review. Moreover, we stand ready to support the effort with SER CIP review process.

For the Supply Chain efforts, the SM-TDUs, as part of the MRC, look forward to the opportunity to provide feedback to the Board on the draft.

Item 2: Special Reliability Assessment Development

While battery storage applications are increasing, this is still a nascent industry with constantly changing and improving technology. Accordingly, it is not imperative to do an assessment at this time, and therefore may be worth postponing to 2020 or later, due to more pressing issues.

If/when an assessment is performed, it is worth noting that the majority of battery applications are not interconnected to the BPS and reside on the distribution level. Microgrids are more commonplace on the distribution system, as well. Accordingly, any assessment may have limited value with respect to the BES reliability.

Any assessment should be technology-neutral and include other forms of storage (not just battery storage), and the reliability benefits they provide. For example, pumped storage and battery storage should be considered operational equivalents.

Additional item, Cloud Services:

Cloud services offer utilities flexibility for their operations and their security programs. However, currently-registered entities are not permitted to use cloud services to store information. SM-TDUs specifically request that the ERO evaluate cloud services and the use of third-party certification such as FedRAMP. Use of such programs should be explored for utilization and endorsement by the ERO/Regions. There is a current need for a standardized framework for security assessment, authorization, and monitoring of cloud products and services. Cloud services are currently used by over 120 Federal Agencies including FERC, DOE, DHS.

Use of cloud services has widespread support from the industry and FERC would likely be receptive to the use of use services based on input during prior FERC CIP audits.

Thank you for the opportunity to provide this policy input. We look forward to the discussion at the meetings.

ADDENDUM

Some specific Dashboard and Performance Goals observations and questions:

Metric 1- fewer, less severe events:

- It's unclear if the "2019 status" is linked to the 3-year rolling average risk indicator. In other words, if the 2019 status is green, does this mean the 3-year rolling average is green?

Metric 2- compliance violations:

- This metric needs further explanation.
- For the first indicator "2019 status," is the 48-45 range based on the 2017 metric? If yes, why is it assumed that this range of 45-48 is a reasonable one to compare the annual measurement against?
- The second indicator suggests that if self-reports are 80 percent or greater, then NERC deems to be, "getting better." Is NERC seeking to raise self-reports? If so, what protocols are in place to do so?
- For the third indicator, do the first two indicators feed into this third indicator? If so, how?
- The footnote explains what is included but not what is excluded.

Metric 3 – protection system misoperation rate:

- The graph suggests that the misoperations rate is decreasing for the ERO, yet recent results show increases for NPCC and TRE. In addition, the use of annual Q4 to annual Q3 results is not explained. Further, the Metric uses a Q3 to Q2 comparison without sufficient explanation.
- Importantly, the metric result suggests that the misoperations rate is increasing. The chart shows the misoperations rate to be decreasing. The presentation offers no information that clarifies what is presented.
- SM-TDUs believe that embedded in this data is important information regarding misoperations. However, the metric presentation does not convey a clear message that stakeholders can act on.

Metric 4 – events caused by generating unit forced outages:

- Forced outages and fuel unavailability are regional issues. Therefore, providing regional information will help regions and registered entities target specific mitigation efforts to address the issue.
- Forced outages often have a significant association with both electric and gas markets. Any market-related information should be noted to ensure full understanding of the metric.
- If fuel unavailability is due to weather, that should be noted.
- The metric is associated with "winter" weather. Are the statistics based on events dated specifically within the winter season? Cold in Canadian regions of North America can be significantly different from cold in Florida and may not be season-specific. For stakeholders to draw relevant information from the metric, having more explanation around the regional impact is needed.

Metric 5 – AC transmission line forced outages:

- There needs to be more detail on metric 5a and b. Outages per circuit on a continent-wide basis is not actionable. (2017 is ~.02-.03) It's not clear how many outages this even equates to, where they occurred, what equipment, etc.
- Metric 5c. Please explain what is meant by "potential" FAC 003 violation?
- Again, regional data would add to best understanding the metric.

Metric 6 – unauthorized physical or electronic access:

- Physical and electronic access should be reported separately as each have unique issues and implicate different reliability standards.

Metric 7- Disturbance control events greater than the most severe single contingency:

- SM-TDUs see this as an important measure that is increasing. Without more DCS and MSSC data that determined the slope, stakeholders are challenged to understand the significance of the change and understand how to influence a positive change in the metric.

Metric 8 – interconnection frequency response:

- No comment/question.

Goals

- Goal 2 includes Internal Controls reviews in all scheduled audits and spot checks. SM-TDUs believe this will have a significant resource impact on the ERO and the registered entities. Because internal controls reviews are voluntary, (although now appear to be mandatory?) this is concerning.
- Under Goal 4, the term "energy assurance risks" is used. SM-TDUs are not aware of what this term specifically is referring to and therefore is at a loss to comment on its inclusion in future LTRAs.
- Goal 5 could be enhanced by adding "bulk power system" or "electric utility" before "cyber" in the title. Cyber and physical security risks can also be the responsibility of government and North American defense. Therefore, making the goal more specific to E-ISAC and NERC may be beneficial.