



Sector 8 Policy Input for the NERC Board of Trustees & Member Representatives Committee February 6-7, 2019 Meetings in Manhattan Beach, California

ELCON, on behalf of Large End-Use Consumers, submits the following policy input for the consideration of NERC's Board of Trustees (BOT) and the Member Representatives Committee (MRC). It responds to BOT Chairman Roy Thilly's January 2, 2019 letter to Jason Marshall, Chair of the MRC.

SUMMARY

- **Item 1: 2019 ERO Enterprise Dashboard and ERO Performance Objectives** — A metrics dashboard is a good idea but we recommend some edits to ensure the metrics are specific and measurable. This includes data comparisons covering similar operating conditions for the Protection System Misoperations Rate, and better clarifying and specifying the Events Caused by Generating Unit Forced Outages Due to Cold Weather or Fuel Unavailability. We support the 2019 performance objectives. However, we recommend giving the CMEP Tool and Standards Efficiency Review greater priority.
- **Item 2: Special Reliability Assessment Development** — A proper evaluation of how battery storage and micro-grid resources affect the BPS is prudent but likely a lower priority than some alternatives, including "Contingency Response for DER and other Inverter-Based Resources," "Changing End-Use Load Characteristics and Dynamic Load Modeling," and "Capacity Value for Generation with Non-Firm Fuel." NERC should only proceed with the storage and micro-grid assessment if it uses a proper scope – economically plausible sensitivities or scenarios – that accurately represent the heterogeneous characteristics of the resources examined. A sound evaluation may help align policy and regulatory decisions with the BPS reliability value of these resources, such as informing the effective load carrying capability methodology of these resources.

Item 1: 2019 ERO Enterprise Dashboard and ERO Performance Objectives

The ERO Enterprise continues to refine its metrics to accurately measure industry and organizational performance, and has developed a proposal that further enhances the metrics for

2019. The proposal contemplates two sets of 2019 metrics: (1) ERO Enterprise Dashboard to track reliability indicators across the bulk power system (BPS) as an awareness tool for the Board, MRC, and stakeholders; and (2) ERO Performance Objectives identifying key accomplishments that align closely with the performance goals in the ERO Enterprise Operating Plan. Once approved, NERC will track and report on these sets of metrics throughout the year.

In October 2018, the NERC Board of Trustees requested MRC policy input on the first drafts of the ERO Enterprise Dashboard and ERO Performance Objectives. Enhancements have been made as a result of MRC Policy Input, as well as additional Board and stakeholder input, as outlined in the January 9, 2019, MRC Informational Session agenda package (see Item 2a). The Board requests MRC policy input on the following questions regarding the revised 2019 ERO Enterprise Dashboard and ERO Performance Objectives:

1. Does the enhanced ERO Enterprise Dashboard capture a meaningful set of BPS reliability and security trends? Are there changes that should be considered to the ERO Enterprise Dashboard?

ELCON Response: A metrics dashboard is a good idea but we recommend some edits to ensure the metrics are specific and measurable. It is not clear that a Pass-Fail dashboard is the best representation under a risk-based approach. More granular metrics would increase the benefit to all users of the dashboard. There is a need to ensure that the dashboard provides relevant, useful information and isn't a check-the-box exercise.

Metric 3: Protection System Misoperations Rate

The data comparison should cover similar operating conditions. Comparing Q2 to Q3 of the same year may not accurately reflect a comparison of misoperations under similar conditions due to the difference in seasonal operating conditions during adjacent quarters. However, comparing Q2 2017 to Q2 2018 provides information on data that was collected under similar operating conditions. Perhaps a comparison of neighboring reporting times is useful but a better representation will be the specific reporting times from one year to the next.

Metric 4: Events Caused by Generating Unit Forced Outages Due to Cold Weather or Fuel Unavailability

This metric needs some clarification. For example, is lack of fuel only measured during cold weather or at any time?

The metric would also benefit from greater specificity. It is not clear that a single metric of "unavailable fuel" provides useful information, whereas specifying the cause of unavailable fuel would provide greater value for system diagnostics and determining whether trends are episodic or systemic and if a common cause exists. For example, fuel unavailability during cold weather can be attributable to

pipeline conditions or to driving conditions preventing pipeline personnel from getting to their compression and meter stations to perform needed activities that increase fuel availability. Greater specificity of certain causes of fuel unavailability may also be useful. For example, trends in unavailable fuel because of *firm* pipeline service curtailment has far different implications for system planners than curtailment of *interruptible* service.

2. Do the enhanced ERO Performance Objectives capture the highest priority activities for NERC and the ERO Enterprise to address in 2019? Are there changes that should be considered to the ERO Performance Objectives?

ELCON Response: ELCON supports the BOT's 2019 performance objectives. However, we suggest the following objectives could have a higher priority.

The CMEP Tool is an important step in the alignment improvement process. Alignment and consistency have been reviewed, discussed and analyzed since mandatory enforcement began in 2007. Moving this process forward, efficiently and effectively, is required.

The Standards Efficiency Review should continue and be a high priority. Weeding out the administrative minutia associated with the zero-tolerance approach and allowing entities to focus resources on activities that pose a higher risk will meet the ERO's objectives of lower risk and increased reliability of the BES. The inclusion of the CIP SER is an important next step.

Item 2: Special Reliability Assessment Development

The ERO Enterprise Operating Plan and Reliability Issues Steering Committee recommendations identify priority risks that should be focused on by NERC. In addition to the long-term and seasonal reliability assessments, NERC periodically conducts special reliability assessments, as called for in Section 803 of NERC's Rules of Procedure, on emerging risks to bulk power system reliability. NERC leverages the technical expertise of its stakeholders through its committees as NERC develops independent reliability assessments of emerging risks. From time to time, NERC requests input from the MRC on topics for forthcoming special assessments. For example, the development of the most recent Special Reliability Assessment on accelerated generation retirements published in December 2018 was supported by the MRC and based on policy input received in April 2017. Past Special Reliability Assessment topics have also included analysis of operational risks, impacts of environmental regulations on generation adequacy, evaluation of emergency response preparedness, adequacy of fuel supply, and topics related to the changing resource mix.

One potential topic identified by NERC management for a 2019 Special Reliability Assessment is the integration of significant amounts of battery storage. Several states have set out aggressive

goals for deployment of batteries to help balance Variable Energy Resources and technology/costs are improving significantly. Batteries are also likely to play a significant role in the development of micro-grids which have been identified by the President’s National Infrastructure Advisory Council as a key resiliency investment to support “community enclaves” in the event of a successful attack on the BPS. While microgrids would be developed and almost certainly regulated by State authorities, they will have reliability implications for the BPS that are not, as yet, well understood. A reliability assessment to study the implications of storage technology integration at the bulk power level and develop recommendations on the way forward could be an important first step toward understanding related risks and mitigation strategies. The Board requests MRC policy input on the following questions regarding Special Reliability Assessments:

1. Do you support conducting a Special Reliability Assessment in 2019 on the integration of significant amounts of battery storage as a feature of the evolving BPS as well as part of the development of micro-grids?

ELCON Response: A proper evaluation of how battery storage and micro-grid resources affect the BPS is prudent but likely a lower priority than some alternatives (see Item 2, Question 2 response). If deployment of these resources is additive, they will be a boon to BPS reliability, but if they insufficiently substitute for alternative resources, they may harm BPS reliability. NERC’s evaluation may help align policy and regulatory decisions with the BPS reliability value of these resources. For example, evaluating the effective load carrying capability of various storage resources under different sensitivities or probabilistic scenarios might inform the capacity accreditation processes used in utility resource plans and capacity markets, which is critical to driving more economical and reliable deployment of storage resources.

NERC should not proceed with a Special Reliability Assessment on battery storage and micro-grids if it uses an improper study scope or does not have sufficient time to conduct a proper analysis. Regarding scope, NERC should evaluate economically plausible scenarios or sensitivities, not a single uneconomic scenario stress test like the December 2018 Special Reliability Assessment that risks misinforming policymakers and regulators.

Storage resources and micro-grids are exceptionally heterogenous in configuration and corresponding performance profiles, making an accurate representation of their potential future deployment and BPS effects very difficult. NERC may consider developing white papers or seeking assistance from trade groups, resource owners, and customers to ascertain sufficient information to conduct a proper analysis. This may require an extension in the timeframe of the study.

Although some storage and micro-grid resources fall below the BPS threshold, NERC should not use the study as a basis for revisiting the definition of the BPS.

2. What additional topic(s), if any, should be considered for future Special Reliability Assessments and what is their relative priority?

ELCON Response: In May 2017, the ERO Enterprise maintained a list of assessment topics. ELCON reiterates support of a Special Reliability Assessment on two of these topics: 1) Contingency Response for DER and other Inverter-Based Resources and 2) Changing End-Use Load Characteristics and Dynamic Load Modeling. ELCON also suggests that “Capacity Value for Generation with Non-Firm Fuel” be added to the priority list, in light of the growing role of non-firm fuel resources. All three of these topics represent a higher priority than the proposed assessment on battery storage and micro-grids.

###