MEMORANDUM

TO: Fred W. Gorbet, Chair
NERC Board of Trustees

FROM: Allen Mosher, Vice President, Policy Analysis, American Public Power Association
Jacqueline Sargent, General Manager, Platte River Power Authority, on behalf of the Large Public Power Council
John Twitty, Executive Director, Transmission Access Policy Study Group

DATE: April 27, 2016

SUBJECT: Response to Request for Policy Input

The American Public Power Association, the Large Public Power Council, and the Transmission Access Policy Study Group concur with the Policy Input submitted today by the State/Municipal and Transmission Dependent Utility Sectors of the Member Representatives Committee, in response to NERC Board Chair Fred W. Gorbet's April 6, 2016 letter requesting policy input in advance of the May 4-5, 2016 NERC Board of Trustees meeting.

TAPS

MEMORANDUM

TO: Fred W. Gorbet, Chair
NERC Board of Trustees

FROM: Carol Chinn
Jackie Sargent
Bill Gallagher
Dave Osburn

DATE: April 27, 2016

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

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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 April 6, 2016 to Mr. Nabil Hitti, Chair of the MRC, requesting policy input on topics that will be of particular interest during the upcoming meetings of the NERC Board of Trustees, Board committees, and the NERC MRC on May 4-5, 2016.

Summary of Comments

- **Item 1: Assessing Reliability for an Evolving Bulk Power System**

SM-TDUs strongly support NERC's initiative to extend its analytical capabilities to address ongoing changes in the ways electricity is produced and delivered. Probabilistic assessments and scenario analysis are required to provide meaningful assessments of future resource requirements and the risks of future inadequacy. NERC must also communicate these risks to policy makers.

We urge NERC to develop a manageable staged work plan that lives within the NERC budget, ensure a collaborative rather than NERC staff-centric initiative, and get early buy-in from industry on potential new data requirements and study assumptions.

SM-TDUs strongly support NERC's initiative to extend its analytical capabilities to address ongoing changes in the ways electricity is produced and delivered. New data and analytical approaches centered on assessing changes in resource capabilities and operational performance are needed to ensure that NERC and regional reliability assessments provide accurate and meaningful assessments of bulk power resource adequacy and operational reliability to serve load. In particular, probabilistic assessments and scenario analysis are required to provide meaningful assessments of future resource requirements and the risks of future inadequacy. The audiences for these assessments include both industry participants and a variety of policy makers at the national, state, and local levels.

- **Item 2: ERO Enterprise Strategic Planning Framework**

SM-TDUs support the general direction of the proposed Strategic Planning Framework, We fully support outcome-based metrics for program performance, while urging NERC to differentiate between the ERO's strategic goals and initiatives and the nuts-and-bolts of operating effective, efficient ERO programs for standards, compliance, and reliability assessments. SM-TDUs offer the following specific comments on the draft Strategic Planning Framework:

The draft Framework includes content which is tactical in nature. Also, the Goal Description and Contributing Activities appear subjective. SM-TDUs understand that the 2017-2020 plan will include "reduced and refined metrics that are outcome based." The draft Framework should include examples of these refined metrics so that timely, constructive comments can be provided. The draft schedule for development of the 2017 metrics may not allow sufficient time for stakeholders to provide such input and for NERC to revise the proposed metrics.

The RISC priorities are an important driver of the strategic plan. It is not clear that the Strategic Framework is aligned with the recommended RISC top 5 areas for strategic focus.

NERC must ensure that the 2018-2021 strategic planning process outlined above is fully vetted with stakeholders and approved by the Board before planning for the 2018 business plan and budget process is begun.

Strategic planning is an exercise that is best used to identify an organization's vision and mission and to plan new initiatives. A strategic planning framework is not needed, and in fact can encumber efficient program operations for ongoing, well-functioning programs. With respect to mature NERC and Regional Entity programs, our primary expectation is to see continuing process efficiency improvements, which should yield lower ERO program costs, incremental improvements in quality (e.g., more informative public reports) and less burden on registered entities. Planning should support zero-based budgeting by the ERO.

We comment in greater detail on both of these items below.

Item 1: Assessing Reliability for an Evolving Bulk Power System:

The Board requests MRC input on the following questions for this item:

1. *Do the proposed enhancements to reliability assessments reflect an appropriate approach for assessing reliability given the increased complexity for the changes in resource mix and electricity delivery?*

2. *Are there additional emerging risks that should be considered for enhancing reliability assessments?*

SM-TDUs strongly support NERC's initiative to extend its analytical capabilities to address ongoing changes in the ways electricity is produced and delivered. New data and analytical

approaches centered on assessing changes in resource capabilities and operational performance are needed to ensure that NERC and regional reliability assessments provide accurate and meaningful assessments of bulk power resource adequacy and operational reliability to serve load. In particular, probabilistic assessments and scenario analysis are required to provide meaningful assessments of future resource requirements and the risks of future inadequacy. The audiences for these assessments include both industry participants and a variety of policy makers at the national, state, and local levels.

We have several cautionary notes.

- First, NERC must develop a manageable staged work plan to develop these enhanced capabilities, living within the budget allocated to this initiative.

- Second, a NERC staff-centric initiative would be misguided. Collaborative efforts between NERC staff, industry stakeholders, and the regions are essential, both to set work plan priorities and ensure buy-in by participants. While the BPS fundamentals are the same, the future resource mix will continue to vary widely between regions.

- Third, we caution that buy-in from industry on potential new data requirements and study assumptions is critically important.

Agenda Item 3a in the April 6, 2016 MRC Informational Webinar identified six specific areas in which NERC is proposing to expand and extend its current analysis and assessment capabilities. We comment briefly on each of the six items below:

1. ***Increased statistical analysis to identify and recognize ongoing trends and risks to reliability.*** SM-TDUs support this focus, while urging NERC to remain focused on bulk power system reliability. While many of the changes the industry is undergoing affect the BPS, an increasing portion affect distribution system planning and operations. NERC should remain focused on the BPS and only analyze how the net impact of such distribution and customer-level decisions affect BPS adequacy and reliability.

2. ***Advancement of interconnection-wide analysis and development of technical studies and practices to use them.*** SM-TDUs support efforts to improve interconnection-wide analysis, including the development of improved models for the eastern interconnection. We caution that the resources required to move this effort forward may divert NERC from two more urgent priorities, such as probabilistic assessments and scenario analysis. An interconnection-wide approach may not make sense since there are significant differences in regional resource mix and operational limits differ between subregions. Special assessments will not be useful if they do not address specific issues and concerns of regions and sub-regional areas. For example, the effects of wind penetration are a pressing issue in ERCOT and SPP, but not in SERC.

3. ***Analysis and incorporation of cyber and physical considerations on electric system planning and operation.*** This topic is very timely given increased importance of cyber protection. However, it is not clear what “physical considerations” means. Does this mean bus configuration, or physical security of major BPS facilities? Moreover, it is

unclear what additional assessments NERC proposes to perform. NERC should clarify its proposal and seek technical committee support before any new initiatives are undertaken. Proper industry input is needed to ensure there is a common understanding of the concerns and what the analysis should entail.

4. ***Incorporating probabilistic, scenario analysis, and transmission adequacy assessment techniques to measure evolving system characteristics.*** As discussed above, SM-TDUs support this effort, provided such studies are focused on BPS performance characteristics rather than distribution system operations. Stakeholder participation in development of such studies is essential.

5. ***Using tools for assessing reliability risks of natural gas infrastructure, including gas storage and pipeline delivery.*** Increased dependence on natural gas infrastructure, including the adequacy of gas pipeline and storage infrastructure to meet simultaneous electric generator and non-electric demands, is a critical issue. A major contingency in the nation's gas storage and delivery infrastructure could place electric reliability at risk as well. As the industry shifts from coal to greater reliance on gas, wind, and solar resources, the supply and deliverability of gas as the swing fuel becomes more critical. This competition between residential, industrial, and electric generation uses presents winter season risks during severe weather conditions. Daily operational pressures on pipeline delivery capacity could worsen as coal and nuclear capacity are retired and replaced by wind and solar generation, with fast-ramp gas generation used to meet the morning and early evening ramp periods. Lastly, natural gas exports are likely to increase as well. Marketers are purchasing pipeline capacity to export to Mexico, reducing the amount available for U.S. entities.

6. ***Increased analytical understanding the interface of distribution-centric resources and their importance to bulk power system reliability.*** See Item 1 above. A NERC focus on the *interaction* between distribution resources and loads and the bulk power system is definitely appropriate. SM-TDUs do caution that distribution planning and operations are outside of NERC's scope.

With respect to Question 2, at this time SM-TDUs have not identified any additional emerging risks that should be considered for enhancing reliability assessments.

Item 2: ERO Enterprise Strategic Planning Framework:

The Board requests MRC input on the strategic plan framework document and whether it conveys a clearer, more streamlined view of the ERO Enterprise's strategic planning approach, including providing clear linkages among the ERO Enterprise's goals, metrics, longer-term strategic planning considerations, and risk priorities.

SM-TDUs support the general direction of the proposed Strategic Planning Framework, while urging NERC to differentiate between the ERO's strategic goals and initiatives and the nuts-and-

bolts of operating effective, efficient ERO programs for standards, compliance and reliability assessments.

We fully support outcome-based metrics for program performance. Like with results-based reliability standards, NERC should seek to establish outcome-based performance measures for its programs (e.g., has BES performance improved over time to a target level), in addition to risk-reduction measures (are standards mitigating the scope and severity of pre-defined Disturbances on BES reliability), and more traditional task-based measures (are compliance violations timely processed during the expected period with the expected quality attributes).

Strategic planning is an exercise that is best used to identify an organization's vision and mission and to plan new initiatives, such as those outlined above under Item 1: Assessing Reliability for an Evolving Bulk Power System. A strategic planning framework is not needed, and in fact can encumber efficient program operations for ongoing, well-functioning programs.

With respect to mature NERC and Regional Entity programs, our primary expectation is to see continuing process efficiency improvements, which should be reflected in lower ERO program costs, incremental improvements in quality (e.g., more informative public reports) and less burden on registered entities. This approach would support the zero-based budgeting approach that many utilities use for annual program planning and budgeting; to do everything better, quicker and more efficiently.

For example, within recent years, NERC has undertaken initiatives to restructure its standards, compliance and enforcement, and entity registration programs; to develop and implement a new BES definition; to implement the CIP version 5 standards; and to expand its capabilities to support industry cyber and physical security. Each of these initiatives have moved from strategic planning and design to program execution. NERC is now engaged in new initiatives to address emerging impacts of a changing resource mix, including assessing the effects on adequacy and BPS operations (including impacts on essential reliability services).

The impacts of these initiatives cut across NERC's 2016-19 strategic goals – which interestingly, can be boiled down to two fundamental goals: (1) ensuring that all of NERC's programs work together to mitigate current and future risks to reliable BPS operations, and (2) ensuring that NERC programs are effective, efficient and collaborative. Emerging programs may have a greater focus on analysis and risk identification, with less measurable impacts on measurable improvements to BPS performance. (How does one evaluate the contra-factual risk equation for a cascading outage that never occurs because the extreme-event risk has been mitigated?) Conversely, other NERC programs will have only intangible impacts on BPS risk mitigation. That is o.k. as well – but that flags the need to emphasize program cost-effectiveness and collaborative, customer-focused program performance.

SM-TDUs offer the following specific comments on the draft Strategic Planning Framework:

- The draft Framework includes content which is tactical in nature. In particular, the items shown as "Contributing Activities" are specific tasks that should not appear in the strategic plan. (These items could of course appear in the business plan and

budget and be indexed to the strategic plan.) Also, the Goal Description and Contributing Activities appear subjective.

- SM-TDUs understand that the 2017-2020 plan will include "reduced and refined metrics that are outcome based." The draft Framework should include examples of these refined metrics so that constructive comments can be provided on more than a skeleton outline.

- NERC states that as 2017 metrics are developed, NERC will seek input from industry. The April 22, 2016 CGHR agenda includes 2017 ERO Enterprise and Corporate Metric Touch points, but based on the schedule provided, it is not clear the stakeholders/industry can influence the metrics, since input will be requested late this year. Another concern is that the metrics are being developed later in the budget process, while they should be drivers for the budget which is already under development.

- The RISC priorities are an important driver of the strategic plan. Appendix 3 includes the RISC Priorities but appears to include every risk that the RISC considered, included those that the RISC assessed as medium and low priority and were not recommended for inclusion by RISC in the top 5 areas for strategic focus.

- NERC must ensure that the 2018-2021 strategic planning process outlined above is fully vetted with stakeholders and approved by the Board *before* planning for the 2018 business plan and budget process is begun.

Thank you for the opportunity to provide this policy input.