NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

April 5, 2012

Mr. Scott Helyer, Chair
NERC Member Representatives Committee
Vice President, Transmission
Tenaska, Inc.
1701 E. Lamar Blvd.
Arlington, Texas 76006

Re: Policy Input to NERC Board of Trustees

Dear Scott:

Congratulations on your first meeting as chair of the Member Representatives Committee (MRC). The Board greatly appreciated the active engagement of committee members in all of the discussions, along with the prepared policy inputs provided to the Board in advance of the meeting.

I have identified below three items on which the Board will be particularly interested in policy input from the MRC members for the upcoming meetings in May. As always, the Board also welcomes input on any other issues that stakeholders wish to provide. I understand the agendas for the MRC and Board meetings are expected to be posted by April 25.

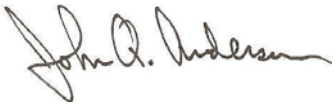
Standards Process Input Group — The Board looks forward to hearing from the MRC Standards Process Input Group (SPIG) on their findings and policy recommendations for improving the existing NERC standards development process and to active discussion of these recommendations by the entire MRC.

2013 NERC and Regional Entity Common Business Plan and Budget Assumptions — NERC and the Regional Entities jointly developed Common Business Plan and Budget Assumptions for the 2013-2015 planning period and posted them for comment on February 21, 2012. The assumptions are being updated in response to comments received from EEI, which have also been posted on the NERC website. Additional comments on the common assumptions are welcome, and will be appropriately considered in business plan and budget review and approval process. As always, it will be most helpful if these comments are as specific as possible. In addition, since the actual draft business plan and budget document will be released after the agendas are posted but prior to the MRC meeting, there will be an opportunity to discuss it at the MRC meeting, thereby providing additional input to the Board.

Definition of Adequate Level of Reliability — As part of the request to the MRC to provide policy input to the Board on the definitions of Bulk Electric System (BES) and Adequate Level of Reliability (ALR), a task force of the Planning, Operating, Critical Infrastructure Protection and Standards Committees has been working on the definition of ALR (see ALR Task Force website) and expects to post by the end of April for industry review and comment a draft definition document, a supporting technical reference document, a discussion paper on risk tolerance, and a mapping of ALR reliability objectives to NERC's Reliability Principles. While we are still not at the stage where the Board will be asked to take action, we would welcome any initial comments and discussion by the MRC members.

Thank you in advance for providing written comments to Holly Mann, MRC Secretary (holly.mann@nerc.net) **by May 1, 2012** so they can be sent to the Board for review in advance of the meeting.

Thank you,



John Q. Anderson, Chair
NERC Board of Trustees

cc: NERC Board of Trustees
Member Representatives Committee
Regional Executives

Edison Electric Institute

Power By Association®

Policy Input for the NERC Board of Trustees

Arlington, Virginia

May 9, 2012

Offered by the Edison Electric Institute

On behalf of our member companies, Edison Electric Institute (EEI) appreciates the opportunity to provide the following brief comments in advance of next week's NERC meetings in Arlington, Virginia. EEI views on reliability are formed by the CEO Reliability Task Force, CEO Business Continuity Task Force, and the Reliability Executive Advisory Committee. We look forward to the meetings and active discussion of the issues in Arlington.

SPIG

EEI strongly supports the framework proposed by SPIG as a solid roadmap for making much-needed standards development process changes. These changes are critical to improve process efficiency and timeliness, identify strategic reliability priorities that require mandatory standards, and clearly define responsibilities for process management and oversight. EEI asks that the Board of Trustees endorse the SPIG framework and seek to ensure that it receive by November 2012 a comprehensive set of changes to governing documents, rules, processes, and procedures.

2013 NERC Budget

EEI will develop and deliver more specific comments on the draft proposed budget and business plan. There is not time sufficient to conduct a detailed review in advance of the upcoming meetings and prepare useful comments.

As a general matter, EEI does believe that the compliance and enforcement program should be capped at current levels for 2013. Expansion of the implementation of FFT

and the introduction of more compliance program tools should reduce the overall resource demands in this core program area.

We make this recommendation out of the strong conviction that the majority of matters sent through the enforcement 'pipeline' are of very little importance to reliability, that dealing with these matters are a sink for wasted time and effort, and a distraction for company personnel from focusing on more important matters, and that the ability of NERC and the regions to fundamentally change this approach are readily available to put in place in a short period of time. Our reading of the March 15 FERC order is that FERC seeks a proactive NERC plan for reducing and eliminating the waste, and refocusing efforts on matters of importance to reliability.

We also believe that the policy and practices that have now been codified by NERC and the regions for compliance and enforcement drive the problems being experienced with standards development, where standards development discussions focus more on compliance risks than reliability risks. There must be accountability in the compliance and enforcement program not only for a need to find violations but also not to find 'violations' that are questionable and then leaving it to those in the enforcement pipeline to deal with unnecessary work. Process improvements in the compliance and enforcement program will go a long way for improving standards development.

Companies define strategic priorities, resource constraints, and incentives for efficiency gains to live within budgets. We view the budget cap recommendation as reasonable, and consistent with our view that the March 15 FERC order stated a strong endorsement for NERC to move ahead with confidence to significantly improve process efficiency and focus on those matters that have importance for reliability. Since the compliance and enforcement program area comprises approximately 50% of the NERC enterprise budget, and we expect significant advances in both process efficiency and risk-based compliance and enforcement processes, we encourage NERC and the regions to redouble the commitment, coordinate their activities, move ahead with a sense of urgency, and anticipate smaller budgets in the future.

Overall, we will continue to strongly challenge the NERC compliance and enforcement program, including the regions, to refocus its time and attention on issues that matter

most to reliability. As an example, we believe that a missed battery test in violation of a standard should require not much more than having the company 'find and fix' the matter, and report to the region. This should not require a months-long review and approval process, a formal mitigation plan, and approval by NERC. The matter should require a few hours and not a few years to address and resolve.

As suggested by materials prepared for the 60-day compliance filing being made by NERC in the FFT docket at FERC (RC11-6, et.al.), it is clear that regions have made varying commitments to the program, companies do not see process efficiency gains, processes and procedures internal to FFT need to be refined, guidelines for effective implementation are needed, and education and training needs to be delivered.

Compliance Operations / CANs / Entity Assessments

An example of our continued concern over compliance and enforcement program, and drivers for budgets, is the development and application of compliance guidance tools. EEI strongly supports development of tools that will help companies understand as clearly as possible how best to ensure compliance with the broad range mandatory standards. Last year, NERC developed a Compliance Applications Notices (CANs) tool, and in comments to the Board in August 2011 EEI supported as having potential as a useful tool to provide informal guidance through a transparent process. At that time, EEI raised process and substantive concerns, especially that CANs could be written in a way that they materially change the requirements in the mandatory standards.

In the nine months since EEI first made these comments, the industry experience had been that the CANs vary widely in their practical value to companies and in some cases change the standards. Furthermore, process and due process has been inconsistent. In addition, we understand that regions do not all make use of the CANs in audits and enforcement activities, and some regions limit their use. We also understand that some regions have developed their own compliance guidance tools. This is a simple recipe for significant wastes of time and other resources, and inconsistent determinations in both compliance and enforcement, thereby raising compliance risks for companies, exactly opposite the design goal.

In the short term, we ask that the Board of Trustees consider asking that the issuance of new CANs be suspended and the compliance guidance 'toolbox' be more clearly organized.

Similarly, with regard to the discussion of 'entity assessments,' while EEI agrees that NERC should consider risk in deciding how best to apply resources for compliance and enforcement, it may be premature for NERC to develop a specific template for determining the risk an entity imposes on reliability, and how that risk should be factored into decisions on compliance audit scope and frequency, or spot check frequency. A formulaic approach to determining entity risks is a complex undertaking where companies have a broad range of views on both the costs and benefits of such an approach. Instead, a reasonable first step might be for regions to apply their own experiences for determining whether audit scope should be adjusted for an entity's risk profile. In the short term, the Board of Trustees should ask NERC staff to suspend development of the entity assessment template.

These compliance operations issues also suggest that NERC and the regions need to significantly improve their coordination activities, where we understand that regions continue to develop their own processes and tools for managing this core program area. Especially for companies with operations in multiple regions, the potential for significantly different regional compliance guidance and processes adds an unnecessary layer of overhead costs that can be prevented by stronger NERC-regional coordination.

ALR

EEI supports the project as a potentially important exercise for defining the goals and objectives of the NERC strategic enterprise. It will be very important to communicate broadly to stakeholders the meaning and value of this project, how NERC intends to apply various ALR materials in standards development, and compliance and enforcement, and how ALR fits within the basic statutory framework of Section 215.

GO/TO Standards Package

EEI recommends that the Board of Trustees approve the package of standards known as "GO/TO" and proceed to file at FERC. We believe that the package offers a

comprehensive approach for addressing reliability issues relating to generator interconnection facilities, and applaud the leadership of stakeholders in proactively seeking to identify the underlying reliability issues and defining a reasonable to the reliability problem. If approved by FERC, implementation of these standards will also provide needed process efficiency gains, relieving NERC and the regions from the need to negotiate individually with generator owners and operators over registration and standards applicability issues.

Attached to this policy input document is a paper that lays out the background and context for this set of issues. The paper is supported by AWEA, EEI, ELCON, EPSA, and NRECA.

GMD

It is increasingly clear that FERC seeks a more detailed action plan from NERC to address geomagnetic disturbances (GMD). EEI supports the NERC interim GMD report and the recommendations made by the report, including milestones for a broad range of followup actions. We recommend that NERC prepare and file with FERC a status report in six months that describes the status of the various recommendations made in the report in order to keep commissioners and staff informed on the status of the many activities, including any unexpected changes.

EEI agrees with the three work areas described at the conference by Commissioner LaFleur: modeling and analysis, mitigation actions, and operational practices and processes. To move forward on a timely basis, we believe that NERC should discuss with the North American Transmission Forum (NATF) and the EEI Spare Transformer Equipment Program (STEP) various followup activities, including data and information data sets needed to perform various modeling and analytical work, as well as the review of processes, procedures, and best practices that might be applied over the near-term. As stated in the written statement for the staff technical conference delivered by Steve Naumann (Exelon Corp.), EEI recommends that the modeling and analysis should be coordinated under the NERC Planning Committee, and activities begun to define various technical parameters for the detailed analyses of asset owners' testing their equipment for GMD vulnerability. As suggested by FERC conference participants, some companies

are already actively analyzing their systems and facilities for GMD vulnerabilities, and reviewing procedures. Having NERC set forth a set of technical assumptions for ground-induced current should allow comparability of companies' examination of these vulnerabilities. Longer term, electric industry participants need to work with EPRI, NERC, and equipment vendors to discuss technical specifications for new transformers.

As additional background information, we attach the EEI written statement that was delivered by Steve Naumann at the April 30 conference.

FERC March 15 FFT Order / Paragraph 81

The March 15 FERC order endorsing the initial NERC FFT filings also asked NERC to propose to FERC candidate standards for retirement, and also asked about process to be used in the future to address the removal of standards. EEI has begun discussions with company subject matter experts to identify candidates for retirement and looks forward to discussing with NERC staff and stakeholders to reach decisions, move a project or projects through the standards development process, and file an initial proposal with FERC by the first quarter of 2013.

We also look forward to working with NERC and the regions to coordinate decisions on a set of candidate standards for retirement, and for developing the necessary technical support for filing a strong proposal at FERC. The regions in particular should bring their experiences and data to these important discussions.

Bulk Power System Reliability

Role of Generator-Transmission Interconnection: GO/TO Standards

April 30, 2012

The Joint Trades[1] recommend that the NERC Board of Trustees ("BOT") approve Project 2010-07, Generator Requirements at the Transmission Interface, and the associated package of standards, referred to as the "GO/TO" project. Approval of the project recognizes the strong consensus expressed by stakeholders in the process, increases registration process efficiency, and provides standards applicability policy guidance. Approval and implementation of the standards in this project achieve an adequate level of reliability by extending applicability of four standards to all Generator Owner ("GO") and Generator Operator ("GOP") entities, which should eliminate the need for negotiations by each GO/GOP entity to define responsibilities regarding interconnection facilities, thereby increasing NERC registration process efficiency.

This approach represents a contrast to how the GO/TO issue was framed in part by three FERC registration appeal cases[2] that affirmed TO/TOP registrations for GO/GOP entities and in a draft NERC Compliance Process Directive. In three registration appeal cases, FERC decided based on facts and circumstances in the records of the proceedings for determining both registration and applicability of various standards based on the record. The GO/TO project package is a generic approach to expand applicability of certain standards to all GO/GOP entities not already registered as TO/TOP entities. Joint Trades believe this generic approach provides a more efficient solution than a case-by-case approach that seeks to define both registration and applicability issue for each and every generator interconnection facility, and invites potentially significant process and due process issues. FERC did not address policy level matters and did not specify application of a case-by-case approach for every interconnection; therefore, the generic approach does not conflict in any way with the existing FERC orders. The GO/TO project approach can be best facilitated by the GO/TO standard drafting team, accompanied by NERC staff meeting with FERC staff prior to filing the GO/TO proposal to discuss the relevant issues, and ensure a shared, clear understanding of the underlying reliability issue. After approval by FERC and implementation of the GO/TO standards, further

[1] Trade associations supporting this paper are: American Wind Energy Association (AWEA), Edison Electric Institute (EEI), Electric Power Supply Association (EPSA), Electricity Consumers Resource Council (ELCON), and National Rural Electric Cooperative Association (NRECA). ELCON joins these comments with the exception of its opposition to revised FAC-003.

[2] (New Harquahala, Milford, Cedar Creek)

development of a draft NERC Compliance Process Directive (CPD) on these matters will be unnecessary.

In addition to approving the GO/TO package and cancelling the draft CPD, the Joint Trades believe that the BOT should also endorse as a policy matter that NERC use the generic process for determining entity registration and applicability of standards. Since the GO/TO package will have addressed TO/TOP –related issues for GO/GOP entities, who own generator interconnection facilities, we believe that NERC and the regions will no longer need to register GO/GOP entities for TO/TOP functions. Implementation of the GO/TO standards will achieve an adequate level of reliability for generator requirements at the transmission interface. Maintaining the case-by-case registration approach while also retaining generic applicability requirements necessitates the use of two separate processes, resulting in inefficient registration and undermining reliability. Maintaining two processes will increase registered entity uncertainty, by adding to the already extensive number of process and due process challenges. Moreover, it will limit NERC and Regions' efficiency and, ultimately, not improve reliability. Therefore, the Joint Trades also request that the BOT direct NERC management and the regions to remove the TO/TOP registrations for all GO/GOP entities that neither own nor operate other BES transmission facilities, once FERC approves the GO/TO package. Since the applicability of these standards will include all GO/GOP entities, the need for a separate TO/TOP registration would become redundant. On a separate track, because FERC has issued decisions on registration appeals involving New Harquahala, Milford, and Cedar Creek, the BOT should seek a legal opinion from the NERC General Counsel for addressing any issues that those FERC decisions may present.

In summary the Joint Trades recommend that the NERC BOT:

1. Approve Project 2010-07, Generator Requirements at the Transmission Interface Package of Standards, what we refer to as the GO/TO standards package.

2. As a policy matter the BOT should endorse the removal of TO/TOP registrations for all GO/GOP entities that neither own nor operate other transmission facilities. When FERC approves the GO/TO package, these TO/TOP registrations will become unnecessary.

3. Upon approval of the GO/TO package by the Board of Trustees, direct NERC management to cancel the draft NERC Compliance Process Directive.

I. Background

Our view is that FERC and NERC have addressed the GO/TO issues from different starting points and used different reasoning and, not surprisingly, reached different conclusions. Different parties have attempted to resolve the issue from different approaches that need to be addressed and resolved in an open and transparent manner by NERC, the regions, and stakeholders. We believe that the GO/TO package has accomplished this, successfully addressing the reliability issues raised by both FERC and NERC that are presented by the unique characteristics of generator interconnection facilities. While there appears to be some general understanding that some generator interconnection facilities with unusual characteristics may possibly need to be covered by the application of mandatory standards in addition to those contained in the GO/TO package, the process for decision making should be reviewed, including consideration of changes to the NERC registration process and due process to make decision-making both much more efficient and faster. We offer the following description of the actions that have taken place in the past four years that bring the GO/TO package to the Board of Trustees for approval.

A. New Harquahala Generating Company, LLC

The New Harquahala decision (Docket No. RC08-4, May 16, 2008) triggered the broader discussion around the question of the materiality of generator interconnection facilities for bulk electric system reliability, and the process and due process issues involving entity registration, and determinations of standards applicability. In its order, FERC affirmed the Harquahala registration as a TO/TOP and defined the standards that would apply, [3] and concluded that NERC and WECC adequately supported the registration as a TO/TOP under NERC's authority to register entities that own or operate assets that are "material to the reliability of the bulk power system."[4] FERC affirmed NERC and WECC findings, based on the specific facts of the case and, rather than making a generic finding for these types of facilities, determined that the reliable operation and maintenance of the interconnection facilities that connect the Harquahala generator to the Hassayampa substation are necessary to the reliability of the Bulk-Power System ("BPS"). FERC cited the reliability issues:

[3] New Harquahala Generating Company, LLC, 123 FERC ¶ 61,173, order on clarification, 123 FERC ¶ 61,311 (2008) (New Harquahala)

[4] NERC Registry Criteria, Notes to Criteria, note 1 (footnote excluded); see also NERC Rules of Procedure, Rule 501.1.2.6.

> "The potential impacts (of a failure of the interconnection facility) include disruption of service at Hassayampa and loss of the substantial generation supply that runs through transmission paths associated with that substation, and loss of the generation output of the Palo Verde nuclear power plant, the nation's largest nuclear power plant. Based on this information, the Commission finds that a reliability gap would exist if the Harquahala interconnection facilities, which are necessary for the reliable operation of the Bulk-Power System, are not subject to Reliability Standards applicable to transmission owners and transmission operators."[5]

Having affirmed the TO/TOP registration, FERC listed the following requirements as applicable:

"…coordination of protection systems, (System Protection Coordination PRC-001-1, R2, R2.2, R4), operations (e.g., Operating Personnel Credentials, PER-003-1, R1, R1.1, R1.2), maintenance (Transmission Vegetation Management Program, FAC-003-1, R1, R2), restoration for the transmission line and the associated switching facilities, and measurement devices from the Harquahala generating station to Hassayampa (Reliability Responsibilities and Authorities, TOP-001-1, R1)."[6]

B. Ad Hoc Group for Generator Requirements at the Transmission Interface White Paper (GO/TO Report)

Stakeholders responded to the Harquahala order out of concern that a case-by-case approach to entity registration and applicability decisions, and the costs of the process and due process, could produce inconsistent outcomes under an inefficient process, and provide little value to reliability. In coordination with NERC staff, a task group was formed. In 2009, the Ad Hoc Group for Generator Requirements at the Transmission Interface produced a report the basis for standards modifications should be to clarify the definitions of GO and GOP, , and Transmission, along with the creation of new definitions: one for Generator Interconnection Facility and one for Generator Interconnection Operational Interface. This report also recommended the addition of these two new definitions to 26 standards encompassing 29 requirements, along with some modifications to FAC-003 to make it applicable to Generator Owners under certain circumstances.

[5] New Harquahala at 54.
[6] New Harquahala at 52.

Following the report, a Standard Authorization (SAR) was approved and a drafting team formed to consider the recommendations of the Ad Hoc group report. Following discussion and consideration of the report and its recommendations, the drafting team concluded in its December 2011 technical justification report to set aside consideration of the new definitions.

> "Instead, the drafting team proposed that so-called 'sole-use' generator interconnection facilities above 100 kV that are owned and operated by generating entities, ' be included in a small set of standards and requirements previously only applicable to Transmission Owners or Transmission Operators. The drafting team did agree with the Ad Hoc group report recommendation that Generator Owners and Generator Operators of these sole-use generator tie-line Facilities should not be registered as Transmission Owners and Transmission Operators in order to maintain reliability on the Bulk Electric System (BES)."

The GO/TO package moved through the balloting process during 2011 and arrived at the BOT for consideration and approval at the February 2012 Board meeting in Phoenix.

C. Cedar Creek and Milford Appeals

The second FERC decision on registration appeals affirmed the case-by-case approach and added further insights into how FERC viewed the materiality and applicability issues. In its June 16, 2011 decision upholding the registrations of Milford and Cedar Creek as TOs and TOPs with respect to their ownership and operation of generator tie-lines, FERC identified certain minimum TO and TOP standards with which Milford and Cedar Creek must comply.[7] FERC also suggested but did not impose a list of other relevant standards, and ordered NERC, Western Electricity Coordinating Council ("WECC"), and the affected generators to negotiate whether to apply any additional standards applicable to TO and TOP entities should be imposed, and directed NERC to submit a compliance filing identifying those standards.[8]

FERC applied the same case "specific fact basis" approach to Cedar Creek and Milford that it used in Harquahala in deciding that the facilities are material to the reliability of the Bulk

[7] *Cedar Creek Wind Energy, LLC and Milford Wind Corridor Phase I, LLC*, 135 FERC ¶61,241 (2011) ("*June 16 Order*").

[8] *Id.* at PP 73, 89.

Power System ("BPS").[9] FERC found that reliability requirements were needed to mitigate "reliability risk that would affect the BPS."[10] Further, the Commission asserted there would be reliability gaps unless there were requirements imposed for the two wind facilities that addressed: "(1) coordination of protection systems, (2) operations and operating credentials, and (3) restoration and development and communications of system operating limits."[11]

FERC suggested the following additional requirements:

- PRC-001-1, Requirements R2, R2.2, R4;
- PRC-004-1 Requirement R1;
- TOP-004-2, Requirements R6, R6.1, R6.2, R6.3, R6.4;
- PER-003-1, Requirements R1, R1.1, R1.2;
- FAC-003-1, Requirements R1, R2;
- TOP-001, Requirement R1 and
- FAC-014-2, Requirement R2.

In ordering the negotiation, FERC offered little guidance, saying only that "…WECC and/or NERC and Cedar Creek (and Milford) may disagree as to whether Cedar Creek (and Milford) should be required to comply with additional Reliability Standards. To resolve any such disputes, the Commission directs WECC and/or NERC and Cedar Creek (and Milford) to negotiate as to what, if any, additional Reliability Standards and Requirements will be applicable to Cedar Creek [Milford]." It is important to note that FERC did clarify that the Cedar Creek and Milford decisions should not be viewed as pre-judging the GO/TO project.[12]

D. Project 2010-07 Generator Requirements as the Transmission Interface

As stated previously, the GO/TO package was developed and balloted during 2011. The package includes FAC-001, FAC-003, PRC-004 and PRC-005, and requires GO and GOP entities to comply. The project did not seek to add any formal terms to the NERC glossary as these were not supported by industry stakeholders.

[9] *Id.* at PP 58.
[10] *Id.* at PP 58.
[11] *Id.* at PP 63 (Cedar Creek), PP 77 (Milford).
[12] Rehearing Order P26, p. 12.

1. SDT's Technical Justification Review of Compliance Directive and FERC Order

While the drafting team concluded that the GO/TO package was the best and most complete set of requirements to move forward, as a due diligence matter it also reviewed and commented on other standards that had been raised in both the FERC registration appeal orders, and the draft proposed NERC CPD. The following are assessments from the Technical Justification of specific Standards raised in FERC Orders or the CPD.

EOP-003-1—Load Shedding Plans – The drafting team found that it was unnecessary to extend applicability of this standard to GO/GOP entities because PRC-001 already includes the requirement that Transmission Operators coordinate their underfrequency load shedding programs with underfrequency isolation of generating units. Since this coordination includes any UFLS settings of equipment owned or operated by GO or GOP entities, the drafting team concluded that application of the existing EOP-003-1 requirements to GO/GOP entities was not necessary as doing so would not close a reliability gap.

EOP-005-1—System Restoration Plans – In Order Nos. 693 and 749, FERC found that GO blackstart requirements have been already been appropriately addressed through the standards development process. EOP-005-2 will become effective in 2013, already having been approved by FERC. The drafting team concluded that no reliability gap existed with respect to owning or operating a generation interconnection facility, and concluded it was therefore not necessary apply this standard to a GO or GOP. The drafting team also noted that the TOP is required to coordinate its restoration plan with Generator Owners and Balancing Authorities within its area under EOP-005-1 Requirement 4.

FAC-014-2—Establish and Communicate System Operating Limits – The drafting team found that this standard should not be revised to include generators. The GO is already required by the FERC-approved versions of FAC-008-1 R1, FAC-009-1, and FAC-008-3 R1, R2, and R6 (filed for approval with FERC), to document the facility ratings for a GO/GOP interconnection circuit greater than 100kV. Voltage limits are, appropriately, set by the applicable TO/TOP with which the GO/GOP interconnects. Therefore, the SDT believes that adding the Generator Owner to FAC-014-2 R2 would be redundant. What's more, the SDT is concerned that entities with limited view (only their Facility) should not be responsible for setting IROLs or SOLs as these are interconnection and system limits. We believe this should be the responsibility of entities with a wide-area view, as shown in the standard today; otherwise, we are concerned that reliability may be jeopardized.

IRO-005-2—Reliability Coordination - The drafting team determined that IRO-005-2 did not require modification to include GO or GOP entities because of the October 2011 retirement of the standard. Further, the drafting team concluded that there was no reliability gap because PRC-001-1 R2 already requires the GO to notify reliability entities of relay or equipment failures. The SDT believes that a Special Protection System is a form of protection system and therefore any degradation or potential failure to operate as expected would be required to be reported by the Generator Operator to reliability entities (Balancing Authorities, Transmission Operators, and Reliability Coordinators).

PER Standards-Operating Personnel Training –FERC addressed PER-001 and PER-002 in Order Nos. 693 and 742. In Order No. 693, FERC directed NERC to "expand the applicability of the personnel training Reliability Standard, PER-002-0, to include (i) generator operators centrally-located at a generation control center with a direct impact on the reliable operation of the Bulk-Power System..." In Order No. 742, FERC reaffirmed this, stating that it is "not modifying the Order No. 693 directive regarding training for certain generator operator dispatch personnel, nor are we expanding a generator operator's responsibilities." The order does not address PER-001-0 or PER-002-0, but it does address PER-003-1. In paragraphs 67 and 81 of the order, FERC expresses concern that operational control over the transmission line breakers owned by the entities in question are not under the control of NERC certified operators. FERC goes on to say that "Reliability Standard PER-003-001 requires NERC certification of all operators that have responsibility for the real-time operation of the interconnected Bulk Electric System. When switching the tie-line in or out of service, operators must have the appropriate credentials and training to properly perform the switching and coordinate the switching to prevent adverse impacts such as the introduction of faults on the system."

The drafting team found no evidence that the kinds of training requirements for operating the breakers of the generator interconnection facilities cited by FERC exist elsewhere for other entities that operate breakers on lines. For instance, Transmission Owners that are not also Transmission Operators are not required to undergo any sort of training. The drafting team does dismiss this issue altogether, and it may be that training should be expanded to include GO and GOP entities, but the development of the standards and requirements necessary to address all of the directives in the cited FERC orders has implications beyond the scope and expertise of this team.

PRC-001-1, R2, R2.2, R4 and R6 —System Protection Coordination –R2 which applies to the both the Generator Operator and Transmission Operator, uses the general terms "relay or

equipment failures" which would include not only generator relaying, but generator interconnection relaying where the Generator Operator has operational responsibility for the protection system (relay or equipment). The Generator Operator is required to notify the Transmission Operator and Host Balancing Authority in R2.1 only "if a protective relay or equipment failure reduces system reliability." Requirement R2.2 requires the affected Transmission Operator to notify its Reliability Coordinator and affected Transmission Operators and Balancing Authorities. Thus, applying R2.2 to a Generator Operator would be redundant to R2.1[13]. The SDT believes it is appropriate to apply R2.2 only to the 'wide area' Transmission Operator as it reasoned that a failure on a sole-use generator interconnection facility would not reduce system reliability. Regarding R4, the SDT reasoned that a sole-use generator interconnection facility would not constitute a major transmission line or major interconnection with neighboring GOs, TOs, and BAs. The drafting team also found that R6, which requires "area" monitoring, was more appropriate for the TOP in light of its wide area view of the system.

PRC-001 also shows how the different approaches used by the Commission and the drafting team resolved coordination of protection systems differently. FERC found in Cedar Creek and Milford that coordination of protection systems would occur for each entity if they were registered as TO/TOPs and if PRC-001-1, R2, R2.2, R4 and R6 applied. Since it was seeking to find what TO/TOPs standards should apply to GOs, the SDT found that PRC-001-1 R2.1 already applies to generators and that because they are required to notify their TOP, the coordination sought in R2.2 would occur without applying R2.2 to GOP entities or registering a GO/GOP as a TO/TOP. For R4 and R6, the SDT reasoned that a sole-use generator interconnection facility does not constitute a major transmission line or major interconnection with neighboring GOs, TOs, and BAs. R6 requires "area" monitoring that a TOP normally performs and not a GO. The SDT reasoned that 'area' in the context of reliability standards is typically comprised of numerous facilities, possibly not owned by the same entity, but for which there needed to be entities with responsibility to insure operational reliability. The SDT believes that PER-003 correctly identifies the appropriate entities and establishes the appropriate hierarchy for insuring the bulk power system is operated reliably. The BA and TOP bear responsibility for facilities located in their respective areas whereas the RC has oversight over its area (which could include multiple BA and TOP areas).

[13] If a Generator Operator had a relay or equipment failure on its Facility, including its interconnection Facility, it would be required to report that to the Transmission Operator it interconnects with (under R2.1)

TOP-001-1—Reliability Responsibilities and Authority – The drafting team found that the TOP-001-1 R1 gives the TOP the necessary decision-making authority over operation of all generator facilities up to the point of interconnection. Therefore, no extension of applicability to GO or GOP entities is necessary as no reliability gap exists.

TOP-004-2—Transmission Operations – The drafting t**e**am concluded that TOP-001-1 R2 already requires GOs to comply with reliability directives from the TOP, the same task that TOP-004-2 requires. TOP-002-3 R3 provides more backup on these responsibilities. Adding TOP-004-2 contributes no additional reliability support and, as noted below, another drafting team has proposed retirement of TOP-004-2.

TOP-006-1—Monitoring System Conditions - The drafting team asserted in its discussions that there was no material difference between PRC-001-1 R1 and TOP-006-1, where the former requires knowledge of the purpose and limitations of protection system schemes applied in its area, and the latter requires knowledge of "the appropriate technical information concerning protective relays." The reliability objective is achieved by compliance with PRC-001-1 R1

TOP-008-1—Response to Transmission Limit Violations - The drafting team concluded there is no reliability benefit to adding this requirement. TOP-001-1 R7 ("Each Transmission Operator and Generator Operator shall not remove Bulk Electric System facilities from service if removing those facilities would burden neighboring systems unless…") and its parts give the GO authority over its facilities, which would include the generator interconnection facility. If there is an outage, R7.1 requires the GO to notify and coordinate with its Transmission Operator, which is required to notify the Reliability Coordinator and other affected TOPs. And as with TOP-004-2, the Project 2007-03 drafting team has proposed to delete all of TOP-008-1's requirements and retiring the standard.

III. Current Status and Recommendations Regarding Project 2010-07

We anticipate that the BOT will approve FAC-001-1 and PRC-004-2.1a, as well as FAC-003-3/FAC-003-X and PRC-005-1 when the latter two standards are balloted and receive industry approval in April. The BOT then will have the Project 2010-07 package for its consideration at its May 9 meeting. We recommend approval of the package and sending it to the Commission for approval. The package should include the *Technical Justification Resource Document* because it addresses the Commission orders, the NERC Compliance Directive, and the *Final Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface*.

While many standards and their requirements have been covered in the GO/TO Report, Commission orders, and the draft NERC CPD, we support the drafting team report as offering a reasoned technical explanation to clarify what standards and requirements should apply to generators with interconnection facilities. Bottom line, we believe that the reliability issues are covered either because requirements have evolved that cover a stated FERC concern or a GO requirement already exists that corresponds with the relevant TOP requirement.

In addition and based on NERC staff recommendation, PRC-001-1 may require further review and discussion. Since this standard involves how changes on neighboring systems would require changes on the GO/GOP facilities, informal technical discussion with the Planning Committee and Operating Committee might be the best first step.

The SDT conclusions are consistent with the Commission's assertions in Cedar Creek and Milford:

> "…we did not encourage adoption of the GO/TO Report Recommendations. Rather in the June 16 Order with encouraged "NERC to develop an approach to this matter that satisfies Bulk-Power-System reliability concerns and allows entities to understand upfront the scope of their compliance responsibilities.""[14]

[14] Cedar Creek Wind Energy, LLC and Milford Wind Corridor Phase I, LLC, 137 FERC ¶ 61,141 (2011) ("Cedar Creek Order").

Table 1

The following table is taken from the GO/TO project technical justification document and lists the standards that have been addressed in the GO/TO initiative.

Standard	Ad Hoc Report*	NERC Directive	FERC Order
EOP-003-1	X		
EOP-005-1		X	
FAC-001-0		X	
FAC-003-1 or FAC-003-2	X	X	X
FAC-014-2		X	X
IRO-005	X		
PER-001-0	X		
PER-002-0	X	X	
PER-003-1			X
PRC-001-1		X	X
TOP-001-1	X	X	X
TOP-004-2	X	X	X
TOP-006-1		X	
TOP-008-1	X		

Table 2

The following table contains the standards and requirements from the draft proposed NERC Compliance Process Directive in which NERC represents that the Appendix A List "identifies all TO and TOP Reliability Standards to which the parties have agreed will apply to Milford and Cedar Creek." Since the list includes the standards and requirements identified in the June 16 order, it appears to be a comprehensive list of all TO/TOP standards and, as the Cedar Creek Order confirmed, the "Reliability Standards that Cedar Creek and Milford must comply. The list includes a number of standards and requirements in addition to those identified in the June 16 order that NERC intends to apply when the CPD is approved.

Reliability Standard	***June 16 Order***	***Draft Directive***	***Appendix A List***	***Project 2010-07***
EOP-005-1	R1, R2, R5, R6, R7	**R1, R2, R5, R6, R7**		
FAC-001-0		R1, R1.1, R1.2, R1.3, R2, R2.1, R2.1.1, R2.1.2, R2.1.3, R2.1.4, R2.1.5, R2.1.6, R2.1.7, R.2.1.8, R2.1.9, R2.1.10, R2.1.11, R2.1.12, R2.1.13, R2.1.14, R2.1.15, R2.1.16, R3	**R1, R1.1, R1.2, R1.3,** R2, R2.1, R2.1.1, R2.1.2, R2.1.3, R2.1.4, R2.1.5, R2.1.6, R2.1.7, R.2.1.8, R2.1.9, R2.1.10, R2.1.11, R2.1.12, R2.1.13, R2.1.14, R2.1.15, R2.1.16, R3	R2, R2.1, R2.1.1, R2.1.2, R2.1.3, R2.1.4, R2.1.5, R2.1.6, R2.1.7, R.2.1.8, R2.1.9, R2.1.10, R2.1.11, R2.1.12, R2.1.13, R2.1.14, R2.1.15, R2.1.16[33]

FAC-003-1	R1, R2	R1, R1.1, R1.2, R1.2.1, R1.2.2, E1.2.2.1, R1.2.2.2, R1.3, R1.4, R1.5, R2, R3, R3.1, R3.2, R3.3, R3.4, R3.4.1, R3.4.2, R3.4.3	R1, R1.1, R1.2, R1.2.1, R1.2.2, E1.2.2.1, R1.2.2.2, R1.3, R1.4, R1.5, R2, R3, R3.1, R3.2, R3.3, R3.4, R3.4.1, R3.4.2, R3.4.3	R1, R1.1, R1.2, R1.2.1, R1.2.2, E1.2.2.1, R1.2.2.2, R1.3, R1.4, R1.5, R2, R3, R3.1, R3.2, R3.3, R3.4, R3.4.1, R3.4.2, R3.4.3
FAC-014-2	R2	R2	R2	
PER-002-0		R2, R3, R3.1, R3.2, R3.3, R3.4, R4	**R2, R3, R3.1, R3.2, R3.3, R3.4, R4**	
PER-003-1	R1, R1.1, R1.2		R1	
PRC-001-1	R2, R2.2, R4, [R6]	R2, R2.2, R4	R2, R2.2, R4, **R6**[34]	
PRC-004-1	R1	R1, R3	R1, R3	R2[35]
PRC-005-1		R1, R2	R1, R2	R1, R2
TOP-001-1	R1	R1	R1	
TOP-004-2	R6, R6.1, R6.2, R6.3, R6.4	R6	R6	
TOP-006-1		R3, R6	**R3, R6**	

UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

Staff Technical Conference on Geomagnetic Disturbances to the Bulk-Power System

Docket No. AD12-13-000

Prepared Remarks of Steven T. Naumann
Vice President, Transmission and NERC Policy, Exelon CorporationOn Behalf of the Edison Electric Institute

Good afternoon. I am Steve Naumann from Exelon. Exelon is a holding company headquartered in Chicago. Our retail utilities, BGE in Baltimore, ComEd in Chicago and PECO in Philadelphia, serve 6.6 million electric customers, or over 15 million people – more than any other company – with a peak load of over 40 GW. Our generation subsidiary owns approximately 35 GW of generating facilities, including fossil, hydro, nuclear and renewable facilities.

I am appearing today on behalf of the Edison Electric Institute (EEI), of which Exelon is a member. EEI is the trade association of U.S. shareholder-owned electric companies and has international affiliate and industry associate members worldwide. EEI's U.S. members serve 95% of the ultimate customers in the shareholder-owned segment of the industry and represent about 70% of the U.S. electric power industry. Thank you for inviting me to speak at this conference.

First, EEI supports the Commission holding a technical conference on these important issues. EEI members support the NERC report on the effects of geomagnetic disturbances

(GMD) and the recommendations made by the report. In general, EEI agrees that the primary risks associated with GMD-related activity are:

- Potential for voltage collapse due to increased reactive loading;
- Possibility of damage to certain physical assets such as transformers.

We also agree that the NERC report is interim, and thus there is significant merit in conducting additional careful technical analysis and, based on the results of such analysis, taking cost-effective actions. Such actions could involve operating procedures, installation of monitoring equipment, recommendations for transformers to withstand certain levels of GMD, and where appropriate, mitigation measures for existing transformers.

That said, the purpose of this panel is to discuss moving forward on GMD issues. EEI agrees generally with the NERC GMD report recommendations for next steps, including:

- Developing tools and methods to support industry analysis of technical issues;
- Improving existing notification procedures for GMD watches and alerts;
- Conducting various training and communications-related activities;
- Evaluating the potential need for mandatory requirements;
- Exploring with EPRI, equipment manufacturers, and industry participants a broad range of technical issues related to transformer design specifications.

Next Steps – System Analysis of Severe GMD Events

We believe that the development of effective preventative tools and methods will depend on the confidence that can be placed in additional study and modeling work. Performing system studies to determine potential broad system effects and impacts on

transformers is a necessary condition before NERC can recommend what, if any, mitigation strategies should be used to ameliorate the impacts of severe GMD events. The studies, and the underlying models, must be open for review by experts from all parts of the industry. If NERC is to make recommendations for the reliability of the North American continent, and this Commission is to review NERC recommendations, possibly including proposed standards, we all must have confidence in the modeling, the data and the analysis and that confidence is best achieved by means of an open process subject to peer review.

To accomplish this goal, EEI recommends that this analytical work take place under the direction of the NERC Planning Committee (PC) as a special study assessment. The technical expertise and diversity of the NERC PC and the members of any special study group would be invaluable for defining the assumptions and parameters of such study, including specifications of any additional data that might be needed to support a strong technical study and ultimately conducting the analysis. The collection of data and information should be conducted using methods similar to those used by NERC committees to obtain data for assessments, including protection of such data as CEII. However, subject to appropriate protection of CEII information, these PC and any study group meetings, as all NERC meetings, would be open.

We anticipate that the studies will analyze in more detail the response of the North American bulk power system following severe GMD events. The analysis would determine among other results whether and at what GMD levels any potential voltage collapse might occur and if so, how broad an area would be affected. The analysis also would determine the magnitude of geomagnetic induced currents at different GMD levels and this data in turn would be used for further analysis by asset owners to determine impacts on their transformers.

Next Steps – Transformer Analysis of Severe GMD Events

EEI also shares concerns regarding the potential vulnerabilities of transformers of a certain age and design to severe GMD events. As stated above, after NERC completes the development of additional methods and tools and the PC completes its analysis, asset owners will conduct detailed technical analysis of transformers, especially those that have the greatest vulnerability to GMD effects, using the technical expertise from the North American Transmission Forum, the Spare Transformer Equipment Program (STEP), transformer manufacturers and others. Under the direction of the PC, the asset owners will develop a project plan and communicate this plan to the NERC and to the Commission. The need to perform the studies sequentially is important. As Mark Lauby of NERC explained this morning, voltage instability caused by a severe GMD event takes place over a period of tens of seconds. Thermal damage to transformers takes longer – on the order of tens of minutes to hours. The two effects are interrelated and must be studied in sequence. Once more data is received from the analysis of transformer response, EPRI, manufacturers and STEP also can develop transformer specifications regarding GMD.

Partnership with Government

As part of the NERC GMD report recommendations for improving education and training, and for improved information exchanges, EEI believes the Joint Statement of the Prime Minister of the United Kingdom and President Obama (May 25, 2011) promising collaboration on assessments of mitigating effects of space weather is an important step. In this country, EEI looks forward to continued collaboration among government and the electric sector, and other affected infrastructure industries, including transportation and

communications. In addition, improvements in space weather prediction and monitoring are needed. One example of such collaboration was the tabletop exercise, Secure Grid '11, conducted in conjunction with Department of Homeland Security and US Northern Command. These exercises, and exchanges of information and learning from such exercises, must continue.

Potential NERC GMD Standard

As I have discussed above, system-wide studies are needed to determine the impacts of severe GMD events, in particular on transformers. Until those studies are completed, it is premature to determine whether NERC should advance development of mandatory requirements to address GMD-related issues. While the analysis is taking place, there is merit in embracing a "do no harm" approach to ensure that various potential solutions do not inadvertently cause new problems. Especially with regard to geomagnetic induced current (GIC) blocking devices, we believe that additional analysis discussed above is required to ensure that any such devices both are effective and do not cause additional reliability problems, especially if applied to selective transformers. Even where such devices or other solutions are shown to be effective, the cost and the practicality of such potential solutions needs to be addressed.

Industry Actions Already Underway

While longer term or standards-related activities are an important part of the overall plan, in the shorter term it is important for the Commission to realize that companies, ISOs and RTOs, and NERC regions, have already developed communications and mitigation procedures

for this vulnerability, as shown in the NERC interim report. A number of companies have installed or are installing GIC monitoring equipment. In addition, a number of asset owners have or are in the process of modeling and analyzing their transformers to assess their vulnerabilities. It may be useful for the Commission to seek in a final NERC report a more detailed listing on the broad range of activities already underway or in place to address GMD vulnerability.

Thank you and I look forward to the question and answer period.

Policy Input to the NERC BOT and MRC – May 8, 2012

The Electricity Consumers Resource Council (ELCON) and Occidental Energy Ventures Corp., Members of the MRC representing the Large End-Use Electricity Customer segment (herein, Large Customers), are pleased to offer the following policy input to the NERC Member Representatives Committee and the Board of Trustees for their May 8 and May 9 meetings.

Standards Process Input Group –Large Customers strongly support the intent and efforts of the Standards Process Input Group (SPIG). We believe that the standards development process can and should be improved and that some standards can be written in a shorter length of time than under the present process. However, we do caution that all standards are not created equal. Some will take much longer to draft than others. Forcing complex standards through any process in a short time may compromise stakeholder input. It is much better to take the appropriate amount of time and get a quality standard than to rush and end with a flawed standard. Large Customers recommend that the Board of Trustees approve the recommendations of the SPIG, including the creation of the Reliability Issues Steering Group (RISC), but carefully monitor the new process and Committee over the next year and make changes as necessary.

2013 NERC and Regional Entity Common Business Plan and Budget Assumptions – Large Customers generally agree with EEI in their March 9, 2012 Comments on the Budget and Business Plan. We believe that NERC should move more aggressively to develop a plan to implement results-based standards. We also believe that NERC should engage both regulators and stakeholders in considering how to realign the compliance and enforcement program to focus on building strong performance incentives, and away from sole reliance on the penalty-based enforcement model. We strongly urge NERC to aggressively pursue a plan to achieve processes that are both efficient and sensitive to costs and rate impacts on consumers. This requires NERC to make much more significant efforts to understand the costs of both participation in the NERC process and the end-use costs of implementation of both standards and compliance.

Definition of Adequate Level of Reliability – Large Customers recognize that NERC has created a task force to provide input on the definition of ALR. Large Customers generally support the efforts of that task force – with one exception. The task force seems to propose that the new ALR is identified as a "definition" which then would be added to the NERC Glossary, making it mandatory and enforceable. Specifically, Items #4 and #5, even though marked with an asterisk indicating a special status, blur the lines between what is an ERO reporting function and what is fair game for reliability standards. Large Customers believe that both Items #4 and #5 can be re-written in a manner which characterizes the reliability aspects of transfer and resource

capacity without including them in the Glossary. A document setting forth our detailed concerns is attached to this Policy Input.

GO/TO Project: Increasingly, Large Customers are experiencing significant problems with NERC Reliability Standards, intended to apply to Elements and Facilities of electric utilities (including merchant generators) and the more complex industrial facilities that may include some form of industrial generation (CHP or cogeneration) and / or other facilities rated 100 kV or higher. This is certainly the case with FAC-003. Large Customers seek NERC BOT support for a general policy that the reach of Standards does not interfere with the manufacturing processes or attempt to control the operation of facilities located within the perimeter fence of an industrial complex. The terms and conditions of a reliable interface with the BES where behind-the-meter generation is present are appropriately defined by each facility's interconnection agreement with the local TO/TOP and therefore there is no risk of a "reliability gap." This does not waive from any compliance obligations such facilities that are outside the perimeter fence. The attached document explains this concern in more detail.

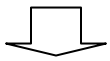
Suggestions to the MRC for the Updated Definition of ALR
Adequate Level of Reliability
Submitted by the Electricity Consumers Resource Council (ELCON) and
Occidental Energy Ventures Corp.
April 19, 2012

Background

The Task Force assigned to re-write the current NERC BOT-approved characteristics of a system with an Adequate Level of Reliability is looking for the MRC's feedback before posting their output for industry-wide review. The current ALR statement was adopted by the Board in February 2008 and filed for informational purposes with the Federal Energy Regulatory Commission afterwards. A snapshot of the changes are shown below:

Characteristics of a System With an Adequate Level of Reliability

1. The System is controlled to stay within acceptable limits during normal conditions.
2. The System performs acceptably after credible Contingencies.
3. The System limits the impact and scope of instability and cascading outages when they occur.
4. The System's Facilities are protected from unacceptable damage by operating them within Facility Ratings.
5. The System's integrity can be restored promptly if it is lost.
6. The System has the ability to supply the aggregate electric power and energy requirements of the electricity consumers at all times, taking into account scheduled and reasonably expected unscheduled outages of system components.



Definition: Adequate Level of Reliability for the Bulk Electric System

1. The BES is free from instability, uncontrolled separation, Cascading, and voltage collapse under normal operating conditions and when subject to predefined Disturbances.
2. BES frequency is maintained within defined parameters under normal operating conditions and when subject to predefined Disturbances.
3. BES voltage is maintained within defined parameters during normal operating conditions and when subject to predefined Disturbances.
4. Sufficient transfer capability of the BES transmission system is provided and maintained to meet required BES demands during normal operating conditions and when subject to predefined Disturbances.*
5. Sufficient resource capability on the BES is provided and maintained to meet required BES demands during normal operating conditions and when subject to predefined Disturbances.*
6. Adverse Reliability Impacts on the BES resulting from conditions beyond the scope of predefined Disturbances (e.g., multiple contingences, unplanned and uncontrolled outages, cyber security events, malicious acts) are minimized.
7. The system has the ability to recover from major system Disturbances, such as blackouts and widespread outages, by restoring BES Facilities in a controlled manner that rebuilds BES integrity and restores supply to load.

Observations and Suggestions

Overall, we support the format and intent of the updates to the ALR. The reliability expectations under "normal operating conditions" and "predefined Disturbances" (Items #1 through #3) is solid and it tracks the philosophy used in the associated NERC standards. In addition, the performance is measurable and will not impact the in-place ALR-tracking metrics.

We also agree that it is prudent to address high-impact low-frequency events (Item #6) even while acknowledging that the impact may not be predefined and lead to major impacts despite the industry's best efforts to avoid them. This naturally funnels into Item #7, requiring Registered Entities to be prepared to restore the BES from a catastrophic event.

The assignment of performance outcomes associated with each item is helpful –as is the Technical Document describing the underlying thought for each. Lastly, we are very supportive of the use of the term "BES" instead of "System" or "BPS". It is important to the continued credibility of the regulatory framework that the CEA's scope of authority is well defined and consistent.

That same line of thinking leads us to our single concern. Included in the modified ALR are items addressing sufficient transfer capability and resource capability (Item #4 and #5 respectively). The ERO has an ongoing responsibility to assess and report on transfer and resource capability, but the Federal Power Act does not allow them to develop standards related to adequacy and safety. This is captured in the following footnote from the draft document:

> [1] Adequate level of reliability is a term used in Section 215 (i)(2,3) of the Federal Power Act specifying what standards the ERO can develop and enforce. Section 215 specifically does not authorize the ERO to develop standards related to adequacy and safety. However, this definition is meant to encompass all the duties of the ERO including obligations to perform assessments of resource and transmission adequacy. Provisions marked with an asterisk denote objectives not related to NERC's standards development and enforcement activities.

However, the new ALR is consistently identified as a "definition" in the title and throughout the document – which makes it appear as though it will be added to the NERC glossary. (The existing ALR does not appear there.) If the intent is to add it to the glossary, CEAs will consider them mandatory and enforceable. A very good example is the definition of the five components of "Protection Systems" – which must be clearly identified and addressed under the PRC standards. Many violations have been assessed where the linkage to each of the five components has not been made clearly.

Even though both item #4 and #5 are marked with an asterisk indicating their special status, this may blur the lines between what is ERO reporting function and what is fair game for reliability standards. This tie is further reinforced in NERC's Reliability Principals – which could virtually assure that capability standards will be a fundamental part of enforceable reliability regulation. (Also, notice that the term "bulk power system" is used throughout the statement of Reliability Principles on the following page. An ancillary goal of this effort should be to change that if possible.)

It is our belief that both Item #4 and Item #5 can be re-written in a manner which characterizes the reliability aspects of transfer and resource capability. Both of these are factors considered in the near-term operations and long-term planning horizons – which asset owners and operators must support by forecasts, outage notifications, and regular capacity validations. It would seem

that these functions could be incorporated into the ALR language without taking away from the fundamental intent to assure sufficient transmission and generation capacity when it is needed.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems[1]. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

[1]The intent of the set of NERC reliability standards is to deliver an Adequate Level of Reliability. The latest set of characteristics associated with an Adequate Level of Reliability are posted on the Reliability Standards Resources Web Page.

Policy Input of the Electricity Consumers Resource Council
Dated May 1, 2012

The BES Interface at Industrial Complexes
The Example of FAC-003

On behalf of the members of the Electricity Consumers Resource Council (ELCON), we welcome this opportunity to offer the following Policy Input in advance of the May 9, 2012 NERC Board of Trustee meeting.

Summary

The purpose of this Policy Input is to highlight the growing conflict between the Applicability of NERC Reliability Standards that are generally intended to apply to Elements and Facilities of electric utilities (including merchant generators) and the more complex industrial facilities that may include some form of industrial cogeneration and/or other facilities rated 100-kV or higher. NERC's "one-size-fits-all" approach to drafting Reliability Standards and Requirements must not result in the application of Requirements to the internal operations of complex industrial facilities. ELCON seeks NERC BOT support for a general policy that the reach of Standards does not interfere with the manufacturing process or attempt to control the operation of facilities located within the perimeter fence of an industrial complex. The terms and conditions of a reliable interface with the BES where behind-the-meter generation is present are appropriately defined by each facility's interconnection agreement with the local TO/TOP and therefore there is no risk of a "reliability gap." This does not waive from any compliance obligations such facilities that are outside the perimeter fence.

Discussion: The Example of FAC-003

ELCON supports the Trade Associations recommendations as contained in the Joint Trades' Policy Input: "Bulk Power System Reliability – Role of Generator-Transmission Interconnection Options and Recommendations" (Date May 1, 2012). However, ELCON takes exception to Joint Trades support for FAC-003-X and FAC-003-3 because while the Applicability section of these Standards may be suitable for Transmission Facilities and Generation Facilities owned by utilities, it is wholly unsuitable for industrial cogeneration facilities and related interconnection facilities that are integrated with a complex manufacturing plant.

FAC-003 presupposes a utility-like configuration of assets inside the fence of large industrial complexes, particularly where industrial cogeneration is deployed. The primary purpose of industrial cogeneration is to produce steam in support of the manufacturing process. It is an integral component of the manufacturing plant. Electricity is produced as a by-product so as to maximize the efficient utilization of fuel. The Applicability section of FAC-003-x and FAC-003-3 assume a GO owns a stand-

alone generator (with one or more units), a single "fenced" switchyard or substation, and a relatively lengthy right-of-way to the point of interconnection with a TO's Facility. As written, the same section requires industrial complexes with cogeneration facilities to develop Transmission Vegetation Management Programs for generator lead lines that are within the manufacturing facility and not otherwise exposed to vegetation.

Modern manufacturing processes are highly electrified and often operate at voltages in excess of 100-kV. It is not uncommon for conductors within the plant to exceed a one-mile threshold supported by multiple towers. These design elements are dictated by the needs of the process equipment and the site configuration, and totally unrelated to the electrical characteristics of the BES. Electric utilities are not the sole users of high voltage equipment, and it is naïve to assume that the use of such equipment is necessary for the reliable operation of the interconnected transmission network.[1]

Industrial cogeneration is typically deployed at an industrial site to accommodate the availability of fuel, the need for process steam, and the configuration of the property. This may result in the generation facilities (including the Generator Step-Up transformer substation) being located deep within the plant with long cable routes and multiple substation connections between the GSU transformer substation and utility interconnection facility located near the perimeter of the industrial complex's fence line.[2] Additionally, the routes of cogenerator lead lines fundamentally differ in nature from a typical merchant generator's lead line route. Since they are located within the fence line of an industrial complex, the routes:

- Rarely contain vegetation and are graveled or paved;
- Are frequently travelled by plant personnel;
- Rarely run in straight lines (*i.e.*, no single line of sight) as necessary to maneuver around factory buildings and equipment; and
- Frequently terminate at a facility located at the fence line of the industrial complex where the local transmission company takes ownership of the power lines that leave the industrial complex.

Furthermore, the use of the term "generating station switchyard" in the Applicability section may result in inconsistent enforcement of the Standard as the use of the term implies there is only one substation located within an industrial Generator Owner's complex. Typically, there are multiple substations that connect an industrial complex's cogenerator lead line to the utility interconnection facility located near the perimeter of

[1] Industrial facilities are not the only non-utility applications of high-voltage technologies. Large commercial facilities and the high energy physics laboratories at major research universities and government labs are other examples.

[2] Professional bias often skews how auditors view the interior of industrial facilities. They try to relate what they're seeing to what they're used to seeing at other facilities, and, as such, they have difficulty separating equipment used for local distribution to load and equipment that is utilized for generation or transmission.

the industrial complex's fence line. The two obvious interpretations for the "generating station switchyard" are the substation that is directly connected to the cogenerator's GSU, and the utility interconnection facility. The transmission-like assets owned by the industrial GO originate with the conductors that leave the fence line of the industrial complex, and travel some distances down conventional transmission right-of-ways, and, therefore, the Applicability of any Reliability Standards that apply to Transmission Facilities should start at the fence line. Reliability concerns related to the Facilities between the GSU transformer substation and utility interconnection facility should be covered by those that apply to GOs and GOPs.

In order to account for the different nature of industrial complex's cogeneration facilities, the SDT should consider re-phrasing the Applicability section of FAC-003-X and FAC-003-3 to start counting the length of a cogenerator lead line at the fence line of the industrial Generator Owner's manufacturing complex and not the cogenerating station switchyard.

Conclusion

The issues raised in this Policy Input need to be resolved. Major manufacturing facilities exist throughout the NERC footprint and were planned and operated under the assumption that the local utility—often with the words "public service" in their name—were responsible for assuring an adequate, affordable and reliable supply of electricity. Customers do not cause outages.[3]

While members of the Industrial End User Customer sector bear a responsibility to carefully monitoring the development of Standards that directly address their relatively limited interface with the BES, as end-use customers they cannot and should not commit the resources to participate on the drafting teams of all Standards that are under development to defend themselves against any unwitting interference with the operation of their manufacturing processes. A general policy is needed that stops the reach of Applicability provisions at the perimeter fence of industrial complexes.

This Policy Input does not change ELCON's continued support for the treatment of behind-the-meter generation in the revised definition of BES that was filed with FERC in January 2012 and awaits FERC approval. However, even the application of the new BES definition is most appropriately exercised by always terminating the BES at the perimeter fence.

[3]On the other hand, it is customers who are harmed by actions beyond their control. Estimates of the total cost of the 2003 Blackout in the United States range between $4 billion and $10 billion (U.S. dollars). In Canada, gross domestic product was down 0.7% in August, there was a net loss of 18.9 million work hours, and manufacturing shipments in Ontario were down $2.3 billion (Canadian dollars). *Final Report on the August 2003 Blackout in the United States and Canada,* US-Canada Power System Outage Task Force, April 2004, at 1.

Electric Power Supply Association
Advocating the power of competition

NERC Board of Trustees
Arlington, Virginia
May 9, 2012
Policy Input of the Electric Power Supply Association

On behalf of its member companies, the Electric Power Supply Association ("EPSA")[1] appreciates the opportunity to provide policy input for the upcoming NERC Member Representatives Committee ("MRC") and Board of Trustees ("BOT") meetings in Arlington, Va. EPSA supports the recognition by the BOT, NERC management and MRC leadership of the value of stakeholders' policy input in advance of the MRC and BOT meetings and how that input can play an important role in informing the BOT leadership on issues impacting the Electric Reliability Organization's ("ERO") evolution.

In his April 5 letter, BOT Chair John Q. Anderson identified for MRC Chair Scott Helyer three items on which the BOT is interested in receiving comments. Herein, EPSA responds to those noted issue areas and includes additional comments on the "GOTO" issue. EPSA continues to emphasize that NERC, as an organization, should be focused on programs and processes that materially support reliability and increase the ERO's efficiency and effectiveness. Program and process development and deployment should be supported by material evidence of their need and value. The Joint Trades comments on the GOTO White Paper and its recommendations reflect such an evaluation and recommendations that will enable an efficient outcome with future benefits.

Standards Process Input Group

EPSA supports the work of the Standards Process Input Group (SPIG) which represents a collaborative effort to increase the efficiency of the ERO work on standards. Establishing and maintaining effective implementation of reliability standards is a bedrock ERO activity for ensuring reliability. The SPIG has been working to expeditiously meet the February BOT request of the MRC for policy input for May BOT meeting. The SPIG's goal of increasing the pace while maintaining the quality of standards development, will achieve a more efficient and

[1] EPSA is the national trade association representing competitive power suppliers, including generators and marketers. Competitive suppliers, which, collectively, account for 40 percent of the installed generating capacity in the United States, provide reliable and competitively priced electricity from environmentally responsible facilities serving power markets. Each EPSA member typically operates in four or more NERC regions, and members represent over 700 registered entities in the NERC registry. EPSA seeks to bring the benefits of competition to all power customers. The comments contained in this filing represent the position of EPSA as an organization, but not necessarily the views of any particular member with respect to any issue.

effective use of ERO resources, and is therefore laudable. The SPIG's emphasis on expediting quality standards is the appropriate priority.

The inclusive SPIG makeup, the Group's respect for existing processes and willingness to engage the full breadth of concerned stakeholders, will yield better standard development. The SPIG's inclusion of NERC representation from different levels from within the ERO and from stakeholders provides the appropriate balance for success.

The SPIG Report should reveal valuable information about the ERO's streamlining the Standards process. It should be recognized that the Report and its changes are not a single or static action. Measuring progress and identifying areas that impede the process will maintain constant improvement. EPSA asserts that the BOT should provide guidance regarding how it believes the Standards process can be measured and maintained.

Find Fix, Track and Report Initiative and the NERC Budget

Chairman Anderson has requested comments on the 2013 NERC and Regional Entity Common Business Plan and Budget Assumptions. Competitive suppliers believe that others more impacted by the NERC budget can best comment on specifics associated with the budget. However, EPSA does believes that the Find Fix and Track ("FFT") initiative has budget implications that the ERO must consider and is important to furthering the ERO's success. Therefore, EPSA provides policy input on the FFT and its budget impacts.

EPSA appreciates the ERO and the BOT for supporting and acting on the FFT initiative as it is a critical process improvement that increases organizational efficiency, allowing for more emphasis on reliability. The March 15 Commission Order sets the stage for Phase II FFT initiative specification. It is through Phase II that the full range of efficiencies associated with the initiative can be realized. Obtaining the full range of FFT efficiencies will enable NERC and the regions to dedicate more resources to areas most critical to maintaining reliability.

The FFT initiative is a positive step that should support future steps to build on and improve the initiative. Building on the initiative in Phase II is key to increasing the efficiency of the budget. Because the compliance resource commitment makes up half of the NERC budget, initiatives that will bring compliance spending more in balance with the other five ERO goal areas is the right approach. Strong FFT evaluation for continued improvement and detailing the plan for implementation of Phase II will inform decisions to build on successes and improve the program. EPSA believes that ensuring consistent coordination of this program will be the cornerstone of its success. EPSA encourages the ERO to continue to provide and stress training for compliance program area personnel. This should be considered a priority area for resource commitment.

Definition of Adequate Level of Reliability (ALR)
The recently posted Discussion Paper Risk Tolerance for Widespread BES Outages with Significant Socio Economic Impacts white paper and position paper from the ALR Task Force does a good job in outlining the challenges in establishing a risk tolerance metric. The Discussion Paper fairly presents the issues associated with establishing metrics, recognizing the necessity to do so, while accepting that the goal is not ensuring perfect reliability.

EPSA looks forward to the further discussion on ALR at the board meeting.

Generator (GO)/Transmission Operator (TO) Issues

EPSA has long been engaged on the "GO/TO" issue, noting in its May 2009 BOT policy input the need for the ERO to make the issue a priority; we therefore support the Joint Trades GOTO Issue White Paper (attached to the EEI Policy Input). EPSA members supported and participated in the Standards process that drew on technical expertise and honored comments from the breadth of industry segments and stakeholders. We applaud the work of the Standards Drafting Team ("SDT") for completing Project 2010-07 with consensus support across Bulk Power System segments. Competitive suppliers are pleased that Project 2010-07, Generator Requirements at the Transmission interface (GO/TO project) and the revisions of four standards is before the BOT for approval. Approving these four revised standards is the appropriate next step. The Project 2010-07 Standard Drafting Team (SDT) analyzed and identified reliability-based areas of improvement but also reviewed the related FERC decisions and NERC Compliance Directive in its Technical Justification. The SDT's resulting standard revisions and technical assessment present well founded approaches to resolving the identified reliability issues. The approval and implementation of these revised standards will extend the applicability of TO/TOP standards to all registered GO/GOP entities, reduce processing and ensure due process for NERC, Regions, and registered entities.

In addition to approving the GO/TO package the Joint Trades believe that the BOT should also endorse as a policy matter that NERC seek to eliminate the current case-by-case process for determining entity registration and, in turn, applicability of standards. Upon approval of the GO/TO package by FERC, NERC will have addressed virtually all TO/TOP –related issues for GO/GOP entities who own generator interconnection facilities.

In short, EPSA emphasizes here what is recommended in the Joint Trades' White Paper requesting that the NERC BOT:
1. Approve Project 2010-07, Generator Requirements at the Transmission Interface Package of Standards.
2. Direct NERC management and the Regions to remove the TO/TOP registrations for all GO/GOP entities that neither own nor operate other BPS transmission facilities upon FERC approval of Project 2010-07.

3. Direct NERC management to cancel the draft NERC Compliance Process Directive which is unnecessary in the wake of the Project 2010-07 package.

Sincerely,
/s/
Jack Cashin
Director, Regulatory Affairs
Electric Power Supply Association
May 1, 2012

ISO/RTO Council's (IRC) Policy Input to Board of Trustees

Standards Process Input Group Report

The IRC would like to discuss the policy implications of the Standards Process Input Group (SPIG) report regarding recommendations concerning the **Quality of Standards** and the **Process**.

The subject report provides recommendations for improving the existing NERC standards development process. The recommendations are fundamentally sound. As to the question of Policy implications the IRC suggests discussion of the following recommendations:

Quality of Standards

- The Technical Issues Steering Group (TISG) – (*its role and scope of activities*)
- Introduction of Cost Effectiveness Analyses – (*the meaning as well as the potential impact on standards development process*)
- Elimination of requirements with minimum value – (*first steps vis-à-vis coordination with FERC*)

Process

- The proposed role of Subject Matter Experts – (*its impact on Industry role*)
- Counting ballots – (*basis for evaluating "No Vote" comments*)
- Time limits on Projects – (*impact on NERC resources*)

Discussion

1. Quality of Standards

TISG

The proposed activities of the TISG range from conducting high-level "triage analysis" of emerging reliability issues, performance gaps, directing the initiation of a standards project or other activities, to setting Project priorities. It is unclear what its role is in relation to other existing committees and established processes.

A review of which SPIG proposals fall within the scope of existing standing committees and other processes will help to facilitate effective implementation of individual recommendations. Where there is potential overlap, a clear decision on which group is to take the lead will be necessary to avoid overlapping effort. A charter for the TISG would provide the industry with a transparent documentation of the TISG role and responsibility versus those of other committees.

In our view the TISG should be a policy/strategy decision maker at a very high level, deciding on which issues to be addressed, and the proposed avenues to address them, but it should leave the

implementation and project management tasks to the executing arms, namely the staff, the SC and the appropriate standing committees. The TISG should not be the one to also take care of the implementation and management aspects.

Cost Effectiveness Analyses Process (CEAP)

As the MRC and the Board consider what constitutes an "Adequate Level of Reliability", the manner in which the ERO and industry take into account costs requires further discussion.

The proposed CEAP appears to be a necessary step for some issues (e.g., evaluating Defence-in-Depth initiatives); valuable for others (e.g. situational analysis proposals); complex for others (e.g., security issues and CIP mandates); and potentially unneeded for others (e.g., core reliability concerns, such as preventing cascading outages and instability).

Different proposals may require different methodologies to be used: for example, should the evaluation focus on the incremental change in cost or on total cost? A discussion by the SPIG in conjunction with the Standards Committee on how to best ensure the right process is used for the right Project should be held to clearly identify the specific process that is best suited for assessing each type of proposal.

Finally, the CEAP work effort will need to achieve consensus on the appropriate questions for consideration as part of what constitutes cost-effectiveness and the methods for addressing those questions. Examples of such questions are: how is the cost of loss of load calculated? Should the CEAP take into account other societal costs, such as environmental costs: e.g., should the cost associated with the removal of a ton of NO_x be more than simply the direct cost of removal?

With regard to costs related to bulk power system operation, questions arise, such as: what is the impact of doubling the reserve obligation? For a large entity that has many "unloaded" generators, the cost may be minimal; but for a small entity such a requirement would put them in a spot market with much higher impacts. Is the impact considered high or is the impact low?

The IRC understands that the above may be regarded as implementation details and a discussion on such details may not be necessary at this time. Nonetheless, we suggest that the SPIG consider addressing such details as it finalizes the report and begins developing implementation proposals and schedules.

Elimination of Standards

The FFT Order acknowledged that elimination of certain Standard requirements might be appropriate. The industry must discuss a roadmap for such an initiative. Identifying "low hanging fruit" is not always as simple as it might first appear. Some issues that should be considered are:

- Does the current Standards Process already provide for steps that facilitate the elimination of Standards?

- Does the Industry need new "non-standard" categories defined before eliminating requirements? (i.e. to address requirements that need to be retained but not retained in the form of a standard)
- What priority should be given to the removal of Standards?

2. Process

Subject Matter Expert teams

The concept of small task oriented teams to prepare Standard Authorization Requests (SARs) is fundamentally a good idea. For this concept to be implemented effectively, the SPIG should provide guidance on:

- How does this differ from the current Standards Process?
  - Many standard requests have been prepared by a single SME
  - There is no prohibition on any group getting together to better formulate its requests
- Will this new group reduce/replace the role of the Industry participants?
- What constitutes an expert? Knowledge of the topic? Knowledge of NERC? Knowledge of the Functional Model?

Ballot counting

The SPIG report proposes several changes in the balloting process. The concept of not counting "No votes that do not include valid comments" is a sound recommendation. A policy issue is:

- Who or what defines "valid"?
  - No comment at all is obviously Not valid
  - Should *any* comment be acceptable, and if not, what criteria/process should be used to establish validity?
  - Will this speed up the process by helping the Drafting Teams?
  - Will this discourage some registered balloting bodies from submitting a ballot due to time constraint that does not allow for crafting a detailed or substantiated comment?

Time limits on Projects

The proposal to set up project completion targets appears to be overly prescriptive and may be counter-productive. Some Projects take longer than others. But, what causes one to go faster than another may be more than just a scheduling issue.

A recent impact on NERC resources caused by comments to a single set of standards has impacted all other Projects.

- Does creating a new Team every 24 months help or hurt the process?
- Can the ERO better highlight their needs? The proposed recommendation does not include the ERO impacts on NERC's resources. Collecting statistical data on the ERO's internal processes will help identify the location and areas of such needs. Such statistics would be a step in improving timely communications.

The Large Public Power Council

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MEMORANDUM

To: Holly Mann, Secretary
NERC Member Representatives Committee

From: Bill Gaines, Director of Utilities and CEO, Tacoma Utilities, on behalf of the Large Public Power Council

Date: May 1, 2012

Subject: Response to April 5, 2012 Letter Requesting Input

On behalf of the Large Public Power Council (LPPC)[1], I have reviewed and concur in the response submitted today by the State and Municipal Utility Sector to NERC Board Chair John Q. Anderson's April 5, 2012 letter.

[1] LPPC represents 26 of the largest state and municipal utilities in the nation, with members that own approximately 90% of the transmission assets owned by non-federal public power utilities.

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POLICY INPUT TO NERC BOARD OF TRUSTEES

MAY 1, 2012

Pursuant to the NERC Board of Trustee's request for policy input from the NERC Member Representative Committee for the upcoming May 9, 2012 meeting, the Midwest Reliability Organization ("MRO") Board of Directors respectfully submits the following for consideration by the NERC Board of Trustees.

Standards Process Input Group *— The Board looks forward to hearing from the MRC Standards Process Input Group (SPIG) on their findings and policy recommendations for improving the existing NERC standards development process and to active discussion of these recommendations by the entire MRC.*

MRO commends the NERC BOT for designating a team to review the standards development process. In previous comments to the NERC BOT, MRO noted the need to delivery better, faster results while continuing to leverage the technical expertise of the industry. To leverage the technical expertise of the industry on standards drafting teams, membership needs to be based on the individual's qualifications to serve as an industry subject matter expert and availability, not his or her company affiliation. To improve the speed of development, MRO supports establishing and adhering to time lines for standards development, including shorter comment periods. We must maintain integrity in the process by ensuring that the standards development process rises above parochial interests of individual participants and remains a technical endeavor. Therefore, MRO supports developing a code of conduct that requires the Registered Ballot Body members and standards drafting team members to vote and work for the overall benefit of the reliability of the bulk electric system not merely the interests of any individual or organization.[1] A corollary to this in the balloting process would be to treat a negative vote without comment as an abstention for the purposes of determining whether a standard has received sufficient support to be approved.[2]

We must also recognize that the proliferation of standards tends to negatively impact reliability. Winston Churchill observed: "If you have ten thousand regulations you destroy all respect for the law." MRO believes that if you have ten thousand requirements, you lose respect for

[1] ISO's Conduct has seven principles, with "Work for the net benefit of the international community" being the first. See http://www.iso.org/iso/codes_of_conduct.pdf.

[2] This is consistent with the ANSI approved process Underwriters Laboratory employs. See paragraph 2.3.4.4(c) at page 15, http://www.ul.com/global/documents/corporate/standards/ApprovedRevisionstoULsAccreditedProcedures.pdf.

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reliability – resulting in an ERO focused on compliance, documentation and process, rather than a risk management focus on reliability through demonstrated performance. Therefore, we must also establish a process to eliminate and collapse standards that are administrative in nature and truly have no impact on reliability. Data from the Find, Fix, Track and Report process, is a good starting point for potential candidates.

In the course of developing the standards, we should be encouraging the industry to develop application guides for the standards. Like the standards themselves, application guides should come from industry subject matter experts and be designed to assist industry in implementing the standards. Engaging industry subject matter experts in this manner will result in a more reliable system.[3]

In the end, our goal should not be to adopt standards that will eliminate all errors or operating anomalies – a zero defect model will not work and the ratepayers cannot afford it. The hallmark of reliability is NOT that errors or operating anomalies won't occur on the system, but that errors and operating anomalies won't result in a cascading event. Our primary focus needs to be on prevention and resiliency – errors and mistakes will happen, we need a system that can withstand them without a cascading outage. This is the essence of risk management. While compliance and enforcement of regulations is a necessary tool and activity, our primary focus must be on working collaboratively with the industry to identify, understand, address and prevent risks thereby creating highly effective reliability organizations or HEROs. [4]

2013 NERC and Regional Entity Common Business Plan and Budget Assumptions — *NERC and the Regional Entities jointly developed Common Business Plan and Budget Assumptions for the 2013-2015 planning period and posted them for comment on February 21, 2012. The assumptions are being updated in response to comments received from EEI, which have also been posted on the NERC website. Additional comments on the common assumptions are welcome, and will be appropriately considered in business plan and budget review and approval process. As always, it will be most helpful if these comments are as specific as possible. In*

[3] In the MRO region, subject matter experts have published application guides on PRC 005/008. Following the publication of the application guides, MRO experienced and increase in self-reported violations of these standards, followed by a decrease in violations and the severity level of the violations.

[4] Similarly, a former head of the Transportation Security Administration (TSA) wrote in the Wall Street Journal: "First, the TSA's mission is to prevent a catastrophic attack on the transportation system, not to ensure that every single passenger can avoid harm while traveling. * * * Second, the TSA's job is to manage risk, not to enforce regulations." Quoted from "*Why Airport Security Is Broken-And How to Fix It,*" by Kip Hawley, April 15, 2012 Wall Street Journal, http://online.wsj.com/article/SB10001424052702303815404577335783535660546.html.

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addition, since the actual draft business plan and budget document will be released after the agendas are posted but prior to the MRC meeting, there will be an opportunity to discuss it at the MRC meeting, thereby providing additional input to the Board.

MRO supports stabilizing costs in the 2013 Business Plans for NERC and the Regional Entities. MRO has proposed a budget with an increase of approximately 2.5%. MRO believes that we must continue to clarify roles among NERC, the Regions and the industry. Greater role clarity will allow resources in the ERO to be used efficiently and allocated appropriately. MRO also supports allocating resources to support NERC's efforts to develop training as well as to adopt credentials and frameworks such as the Department of Defense Directive 8570 and those being developed by the National Initiative for Cybersecurity Education (NICE)[5] which includes over twenty United States federal departments and agencies for CIP professionals. Existing frameworks can be supplemented adding specific subject matter such as real time systems security (e.g. SCADA). MRO believes this work can be done in a cost effective manner.

Definition of Adequate Level of Reliability *— As part of the request to the MRC to provide policy input to the Board on the definitions of Bulk Electric System (BES) and Adequate Level of Reliability (ALR), a task force of the Planning, Operating, Critical Infrastructure Protection and Standards Committees has been working on the definition of ALR (see ALR Task Force website) and expects to post by the end of April for industry review and comment a draft definition document, a supporting technical reference document, a discussion paper on risk tolerance, and a mapping of ALR reliability objectives to NERC's Reliability Principles. While we are still not at the stage where the Board will be asked to take action, we would welcome any initial comments and discussion by the MRC members.*

The definition of an adequate level of reliability is an important policy matter for the NERC BOT; MRO appreciates the opportunity to comment. As previously noted the hallmark of reliability is not the absence of errors or operating anomalies. The hallmark of reliability is the absence of errors or operating anomalies that lead to cascading events. As we define "adequate level of reliability", we need to be mindful that we are only as strong as our weakest link and through the definition of the ALR, we must not ignore the importance of individual entity systems – we are after all, a system of systems and therefore, ALR must be considered on an interconnection-wide basis as well as an individual- system basis.

[5] See http://csrc.nist.gov/nice/framework.

National Rural Electric Cooperative Association (NRECA)
Policy Input to the NERC Board of Trustees (BOT)
May 1, 2012

NRECA appreciates the opportunity to provide policy input to the NERC BOT regarding several issues that will be discussed at the May 8/9 MRC and BOT meetings.

Standard Process Input Group (SPIG)

- NRECA commends the SPIG for its efforts in developing their report on potential improvements to the NERC standards development process.
- At this time, NRECA is concerned with the potential of a lesser role for industry stakeholders, and a larger role for NERC staff, as outlined in the SPIG report.
- NRECA is still reviewing the SPIG report and will provide further comments at the MRC and SOTC meeting.

2013 NERC and Regional Entity Common Business Plan and Budget Assumptions

- NRECA is not providing policy input at this time. We will submit comments in future budget comment periods.

Definition of Adequate Level of Reliability

- NRECA is not providing policy input at this time. We will submit comments in the formal ALR comment period that is currently open.

GOTO Issues

- NRECA encourages the BOT to approve the GOTO-related standards that are before them at the May 9 meeting.
- NRECA is a signatory and supports the GOTO issue paper that EEI has attached to its policy input.

FFTR Issues

- NRECA requests that the BOT engage NERC management to gain a better understanding of when future phases of the CEI/FFTR initiative will be implemented. Phase 1 has been implemented; however, most of the significant benefits have focused on NERC and RE resources.
- Phase 2 and 3 of this initiative will potentially provide significant benefits to industry stakeholders. At the present time NRECA is not aware of a formal plan to implement Phase 2 and 3, and we encourage the BOT and NERC to put the necessary focus on this work to provide industry stakeholders confidence that this is being addressed as quickly as possible.
- NRECA is also concerned with the varied implementation of FFTR by the REs and urges NERC and the REs to fully implement the FFTR initiative.

- In addition, NRECA is concerned that NERC may not have the ability to require the REs to implement the FFTR initiative. We request that NERC review the CMEP to determine if changes are needed to ensure full implementation of this important initiative.
- NRECA is very supportive of the ERO, in collaboration with industry stakeholders, being responsive to the opportunity provided by FERC in P81 of the FFTR order to review and eliminate standards that provide no or minimal reliability benefits. NRECA believes this opportunity should be aggressively pursued.

Barry R. Lawson
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SERC Board of Directors Policy Input to NERC
May 2012

SERC Reliability Corporation (SERC) continues to be pleased with and supportive of the continued advances being made by the Electric Reliability Organization (ERO). The SERC Board of Directors appreciates the opportunity to provide policy input to NERC for the May 2012 Board of Trustees and Member Representatives Committee meetings.

Standards Process Input Group

- SERC supports the direction being taken by the Standards Process Input Group (SPIG).
- SERC is in favor of actions that could ensure that standards fill a reliability performance gap and are cost justified.
- SERC is supportive of creating more efficiency and timeliness in the standards development process, but SERC also acknowledges that developing technically superior standards leveraging the expertise of many experts will, by definition, take time. Care should be taken to avoid improving timeliness at the expense of a quality consensus product.
- SERC suggests in future standards development activities an increased focus on feedback loops from compliance, reliability performance, event analysis and other information sources.
- SERC is also very supportive of the ERO being responsive to the opportunity provided by FERC to review and eliminate standards that provide no or minimal reliability benefits.
- SERC will reserve judgment on the formation of a Technical Issues Steering Group until the relationship of that group to the existing Standards Committee and other NERC technical committees is better defined.

2013 NERC and Regional Entity Common Business Plan and Budget Assumptions

- NERC and the eight Regional Entities have collaborated in the development of a common set of business planning goals, objectives and assumptions for the 2013-2015 planning period. These assumptions provide guidance to NERC and to the Regional Entities in the preparation of budgets and work plans.
- SERC acknowledges and greatly appreciates the progressive improvements that have been made to ERO business planning over the last couple of budget cycles.
- SERC generally supports the common business plan and budget assumptions.
- SERC does provide a couple of observations.
    - SERC believes that the ERO needs to have properly trained and credentialed resources performing statutory functions. At the same time, too much training and credentialing can be time-consuming and expensive, and may not have commensurate value for BES reliability. It is important to SERC that the training and credentialing not result in discouraging the participation of industry subject matter experts on the audit teams. SERC suggests that the ERO proceed judiciously and cautiously in this area. Furthermore, SERC recommends that this initiative be pursued only after development of a proper business case defining scope, activities, estimated cost and commensurate value. The business plan should give consideration to staging implementation with the initial focus on providing an

exceptional training experience to audit team leads.
    - SERC strongly supports NERC and Regional Entity collaboration to implement the BES exception process in a clear, unambiguous, and efficient manner to avoid the need for substantial ERO and industry resources to implement.
- SERC appreciates that good oversight and approval of budgets are important for proper business rigor in the ERO model. SERC is concerned, however, with the multiplicity and duplicative reviews given the Regional Entity budgets. While NERC should be expected to review Regional Entity budgets, conducting three or four public reviews after review, posting, and approval at the Regional Entity level is an unnecessary use of resources. NERC's role has moved from one of oversight to duplication of the Regional Entity's consideration and approval; this adjustment seems to ignore the organizational decision making responsibility and fiscal responsibility of the regional entity and its board of directors.

Definition of Adequate Level of Reliability

- A task force of the NERC standing committees (the Adequate Level of Reliability Task Force (ALRTF)) has prepared and posted a draft definition of Adequate Level of Reliability (ALR) for the BES as well as a supporting technical report.
- SERC is supportive of the ALRTF draft definition and the draft technical report. The draft definition and report provide clarity and document the intent of the definition.
- SERC is keenly aware that definitions for both ALR and BES are needed to support pursuit of results based standards. In that regard, SERC continues to support efforts to seek resolution of these definitions.
- SERC will reserve its final judgment on ALR definition until the final definition is prepared.

MEMORANDUM

TO: Holly Mann, Secretary
NERC Member Representatives Committee

FROM: Tim J. Arlt
John DiStasio
Bill Gallagher
John Twitty

DATE: May 1, 2012

SUBJECT: Response to Request for Policy Input

The MRC's State and Municipal and Transmission Dependent Utility Sectors ("SM-TDUs") appreciate the opportunity to respond to the April 5, 2012 letter from NERC Board Chair John Q. Anderson to Mr. Scott Helyer, acting in his capacity as the Chair of the NERC Member Representatives Committee ("MRC"), requesting policy input on topics to be discussed by the NERC MRC and the NERC Board of Trustees at the upcoming May meetings.

This response addresses all three topics raised in Mr. Anderson's April 5 letter: (i) the findings and policy recommendations of the Standards Process Input Group ("SPIG"), (ii) the 2013-15 NERC and Regional Entity Common Business Plan and Budget Assumptions, and (iii) the draft definition document of Adequate Level of Reliability ("ALR"). We also address several other policy issues raised in the MRC and BOT Agendas, including NERC's Compliance Enforcement Initiative, NERC's critical infrastructure resiliency and cyber-security initiatives, including the Coordinated Action Plan, and the Board's pending approval of the GO-TO standards project.

I. Standards Process Input Group

SM-TDUs strongly support the SPIG's *Recommendations to Improve the NERC Standards Development Process* and commend the SPIG for its systematic approach to diverse industry views on the NERC standards process. The SPIG Report is responsive to concerns we and other industry groups have raised in comments on NERC's Three Year Assessment, the ERO Strategic Plan, and Policy Input submitted by the trade associations prior to the February 2012 Board meeting. We support each of the SPIG's five major recommendations and offer the following additional thoughts and concerns about the path forward toward implementation:

> *Recommendation 1: American National Standards Institute* — SM-TDUs agree NERC should ensure its continued accreditation as a standards development organization, while seeking out process efficiencies that adhere to ANSI principles. This path helps ensure continued stakeholder and regulatory authority confidence in NERC.

Recommendation 2: Reliability Issues Steering Committee — SM-TDUs support NERC Board formation of a Reliability Issues Steering Committee ("RISC") to conduct front-end, high-level review of nominated reliability issues and recommend the initiation of standards projects or other solutions that will address these reliability issues. Care must be taken, however, to ensure that the RISC does not duplicate the work of other NERC committees and task forces. The RISC should focus on development of strategies and work plans to address emerging reliability issues and strategic risks to the bulk electric system. SM-TDUs suggest that the Board direct development of an interim RISC scope document and membership plan and then reassess the RISC in summer 2013.

Recommendation 3: Interface with Regulatory and Governmental Authorities — SM-TDUs fully agree that NERC must work with stakeholders to develop a strategy for improving the communication and awareness of effective reliability risk controls. A common, shared view of reliability risks and cost-effective controls is essential to ensure that NERC, the Regions and stakeholders do not work at cross purposes with state, federal, and provincial authorities. At its core, this combined risk management and communications strategy encompasses the ERO's entire program, not just the development and approval of reliability standards.

For example, the Board is slated to adopt revisions to the remaining reliability standards identified in Project 2010-07, Generator Requirements at the Transmission Interface. SM-TDUs agree with other industry stakeholders that approval of these standards revisions will fill the potential gap created by generator ownership and operation of certain limited transmission interconnection facilities operating at BES voltage levels, without requiring such generators to be registered by NERC and its Regional Entities as Transmission Owners and Operators. NERC, the industry and regulatory authorities should embrace this approach because it provides clarity to new and existing generators on their regulatory obligations without imposing regulatory burdens that are disproportionate to any potential reliability benefits. This approach also avoids the regulatory uncertainty associated with case-by-case registration by requirement. It will also make more efficient use of NERC, Regional Entity and regulatory authority resources.

Recommendation 4: Standards Product Issues — SM-TDUs fully support the SPIG's recommendations and encourage the NERC Board to direct the Standards Committee and NERC staff to accelerate programs and procedures to develop Results–Based Standards ("RBS"), assess the cost effectiveness of standards, align standards requirements/measures with Reliability Standards Audit Worksheets ("RSAWs"), and consider the retirement of compliance elements such as Violation Severity Levels that are time-consuming to develop and have limited validity in the field. SM-TDUs strongly support an initiative to identify and retire specific standards and requirements that are no longer needed to meet an adequate level of reliability. The outlines of such a plan are set out under Standards Oversight and Technology Committee Agenda Item 4b, concerning P 81 of the FERC's order conditionally accepting NERC's Find, Fix and Track ("FFT")

proposal, where FERC noted that perhaps some current requirements provide "little protection for Bulk Electric System reliability or may be redundant."[1]

Recommendation 5: Standards Development Process and Resource Issues — SM-TDUs encourage the NERC Board to direct the Standards Committee and staff to develop and propose specific revisions to the standards process and develop new tools that will foster timely stakeholder consensus in support of new or revised reliability standards. For example, Standard Drafting Teams ("SDTs") should focus on understanding and addressing all *substantive issues* raised during formal comment periods, rather than on ensuring that each commenter receives a unique response. The Board is also encouraged to allocate standard development resources to achieve better project management. The Standards Committee and staff should ensure that all SDTs have the regulatory, legal and writing resources and leadership skill sets needed to make efficient progress toward industry technical consensus.

We appreciate the SPIG's efforts and look forward to supporting these much needed reforms.

II. 2013-15 NERC and Regional Entity Common Business Plan and Budget Assumptions

SM-TDUs are encouraged by the March 26, 2012 shared business plan and budget assumptions developed by NERC and the Regional Entities.[2] The assumptions are a good step toward controlling the costs associated with the operations of NERC and the Regional Entities. These regulatory costs have increased at a double-digit rate since certification of NERC as the ERO, placing tremendous pressure on the SM-TDUs to mitigate rate impacts on our customers, who continue to struggle with their own financial constraints and a slow-recovering economy.

As SM-TDUs have stated before, we believe that NERC must make prudent decisions regarding its budget to ensure that excessive costs are not passed on to utilities and their customers. NERC and its regions must also be more cognizant of the regulatory cost burden that the ERO business plan imposes on each Registered Entity. To this end, SM-TDUs urge the Board to adopt additional business plan assumptions on the efficiency and effectiveness of NERC and Regional Entity programs.

In the area of compliance and enforcement, the assumptions should make clear that the efforts expended by NERC, Regional Entities, and *Registered Entities* on the paperwork associated with enforcement actions must be reduced. We continue to believe that most of the process efficiencies to date reduce the FERC filing requirements borne by NERC, without creating corresponding cost savings for Registered Entities. Each Regional Entity should be held accountable for expeditious implementation of the FFT program, including the identification of specific requirements that are pre-determined to be eligible for FFT when submitted as part of a Registered Entity self-report. We support the allocation of sufficient budgetary resources to the

[1] *North American Electric Reliability Corporation*, 138 FERC ¶ 61,193 (2012).

[2] Go to: http://www.nerc.com/filez/business_plan_2013.html

Regional Entities to hire and train field audit staff, such that these auditors have the subject matter expertise and professional auditor training required to distinguish between entities that have robust, systematic internal controls that evidence a culture of compliance, and those entities that have room for improvement. In return, the Board should insist that NERC staff and the regions actually execute this risk-informed allocation of NERC and regional staff enforcement resources.

In the area of cyber-security and critical infrastructure protection, the Board should adopt a business plan assumption that NERC will fully execute the plans that are now in place and avoid at all cost further "mission creep" that is not offset by curtailment of current projects. SM-TDUs continue to be concerned that NERC – and by extension, the electric utility industry – may become overextended in its efforts to manage the core mission as the ERO, which is to develop and enforce reliability standards, and its broader roles in government-industry coordination, information sharing, and education. These other responsibilities include the Electricity Sector Information Sharing and Analysis Center ("ES-ISAC"), the National Cyber-Security Information Center, development and operation of the new bi-directional communication portal between government and industry, various multi-sector training exercises such as the Grid-Ex 2012, and implementation of the Coordinated Action Plan. As just one example, the Coordinated Action Plan proposes implementation of over 50 specific recommendations during 2012-13 and beyond. During this same multi-year period, the industry will adopt and begin implementing Version 5 of NERC's Critical Infrastructure Protection ("CIP") Standards. Bottom line, something has got to give: if NERC and the industry are going to successfully adopt and implement new CIP standards *and* implement the information sharing and infrastructure resiliency programs outlined above, we will need to integrate and prioritize the action plans, insist on actual results and radically reduce the documentation burden imposed by the current CIP standards program, with its emphasis on checkbox compliance and processing of Technical Feasibility Exceptions.

III. Definition of Adequate Level of Reliability

At this time, SM-TDUs will refrain from detailed comments on the ALR definition and technical document until we have discussed these documents with our colleagues.[3] From our initial review, the revised definition does a sound job of refocusing the current Board-approved definition on core reliability objectives and performance outcomes for the reliable design, planning and operation of the Bulk Electric System.

SM-TDUs have also reviewed the *Discussion Paper: Risk Tolerance for Widespread BES Outages with Significant Socio-Economic Impacts*. The ALR Task Force proposes that NERC investigate the use of a probabilistic risk management framework to establish reliability objectives and performance expectations that will manage the socio-economic impacts of widespread outages on the bulk electric system. The Discussion Paper raises important issues which require significant discussion and thought before we endorse the concepts discussed therein, including further development of the proposed probabilistic risk management

[3] The ALR Definition and associated documents have been posted for a 60-day comment period beginning on April 25, 2012. http://www.nerc.com/filez/alrtf.html

framework. SM-TDUs close their Policy Input to the NERC Board with the following excerpt from pages 2-3 of the draft Discussion Paper:

> The ALR Reliability Objectives and Performance Outcomes do not operate in isolation. Rather, reliable planning and operation of the BES is governed by: 1) the statutory framework established by Section 215 of the Federal Power Act and by corresponding obligations established by Canadian provincial authorities, 2) the expectations of numerous other institutions, including state and local regulators which have jurisdiction over rates charged to ultimate consumers, 3) public and consumer expectations that they will receive reliable yet affordable electric service, and 4) the industry's broader public interest obligation to ensure reliable operation of one of modern society's most critical infrastructures. Indeed, it is widely recognized by electric sector policymakers, and by government and industry generally, that wide area outages of the electric power system, due to major BES events or to extreme events affecting local distribution systems (which are generally weather-related), impose a substantial burden on modern society.
>
> Hence, the basic question is, are we using the standards to manage local, customer-centric risks, or macro/socioeconomic risks? The ALRTF believes that the larger purpose of NERC Reliability Standards and the NERC statutory construct is to manage socioeconomic risks, e.g., risks to the "common good" of an unreliable BES.

SM-TDUs agree.

Thank you for the opportunity to provide this input.