## FEDERAL ENERGY REGULATORY COMMISSION DOCKET NO. RR14-\_\_

## NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

## **DRAFT ATTACHMENT 5**

TO

FIVE-YEAR
ELECTRIC RELIABILITY ORGANIZATION
PERFORMANCE ASSESSMENT REPORT

STATUS OF AREAS FOR IMPROVEMENT IDENTIFIED
IN THE ORDER ON THE THREE-YEAR ERO PERFORMANCE ASSESSMENT

**JULY 21, 2014** 

Attachment 5: Status of Areas for Improvement Identified in the Order on the ERO Three-Year Performance Assessment

Citation to Order on the ERO Three-Year Performance Assessment (¶)	Areas for Improvement	Status Update / Reference in Statement of Activities and Accomplishments or NERC Evaluation of the Regional Entities
100-102	Believes that NERC (along with its stakeholders) should prioritize those Reliability Standards projects that, in its expert judgment, are the most critical to the reliability of the Bulk-Power System (BPS).	The NERC Board has established the Reliability Issues Steering Committee (RISC) to set priorities on issues of importance to the Bulk-Power System, including the development of Reliability Standards.  See Statement of Activities and Accomplishments, page 24.
104	Reach out to registered entities to provide expert volunteers on Reliability Standards drafting teams and continue streamlining NERC's procedure to aid in reducing the strain on industry resources overall.	NERC has increased focus on outreach to stakeholders for participation in the Reliability Standards development process. At the end of May 2014, 858 stakeholder representatives had registered their eligibility to vote on proposed Reliability Standards as members of the Registered Ballot Body, and in 2013 alone NERC hosted 43 Reliability Standard industry webinars attended by an average of 360 participants. During the last six months of 2013, Standard Drafting Teams and Five-Year Review Teams made up of 195 industry volunteers participated in 60 team meetings to advance Reliability Standards development activities.  NERC has also made revisions to the Standards Process Manual (SPM), which were approved by the Commission on June 26, 2013. These revisions have, among other things, led to a substantial decrease in the time required to revise an existing Reliability Standard or to develop a new one. This reduction in time provides registered entities with increased

NERC must clearly demonstrate that any proposed elimination of a requirement does not diminish the reliability and enforceability of the existing Reliability Standard.  In the first quarter of 2013, NERC assembled the Reliability Standards Independent Experts Review Panel (Panel or IERP) consisting of five independent industry experts and a sixth participant from the Commission. At the end of its review in August of 2013, the Panel recommended (among other things) the retirement of 147 existing requirements of Reliability Standards. In making this determination, the Panel assessed whether a requirement: (i) did not support a reliability principle; (ii) met the Paragraph 81 criteria for retirement; or (iii) was better suited as a guideline rather than as a part of a Reliability Standards. The Panel's recommendations set the course for delivering high quality, results-based Reliability Standards with sustainable requirements. For the remaining requirements that the Panel applied content and quality criteria to examine whether they were steady-state or needed additional work. The Panel evaluated whether these remaining requirements addressed a risk to reliability by examining: (i) the ranking developed by the NERC RISC; (ii) the Violation Risk Factor for each requirement; and (iii) the Panel members' own professional judgment  The P 81 initiative identified three layers of criteria to determine whether a requirement should be recommended for retirement. These criteria were identified in a technical			flexibility in staffing standard drafting teams due to the reduced time commitment.  See Statement of Activities and Accomplishments, pages 4, 22.
remement. These effectia were identified in a technical	108	proposed elimination of a requirement does not diminish the reliability and enforceability	Standards Independent Experts Review Panel (Panel or IERP) consisting of five independent industry experts and a sixth participant from the Commission. At the end of its review in August of 2013, the Panel recommended (among other things) the retirement of 147 existing requirements of Reliability Standards. In making this determination, the Panel assessed whether a requirement: (i) did not support a reliability principle; (ii) met the Paragraph 81 criteria for retirement; or (iii) was better suited as a guideline rather than as a part of a Reliability Standard. The Panel's recommendations set the course for delivering high quality, results-based Reliability Standards with sustainable requirements. For the remaining requirements that the Panel did not recommend for retirement, the Panel applied content and quality criteria to examine whether they were steady-state or needed additional work. The Panel evaluated whether these remaining requirements addressed a risk to reliability by examining: (i) the ranking developed by the NERC RISC; (ii) the Violation Risk Factor for each requirement; and (iii) the Panel members' own professional judgment  The P 81 initiative identified three layers of criteria to

		issued an order on November 21, 2013 approving the retirement of 34 requirements and sub-requirements within 19 Reliability Standards.  See Statement of Activities and Accomplishments, pages 12-15; 15-17.
103	NERC and the Regional Entities should also plan to complete the fill-in-the-blank Reliability Standards, which remain pending from Order No. 693. We agree with NERC that setting priorities regarding fill-in-the-blank standards is an issue that should be resolved jointly by NERC and the Regional Entities.	NERC and the Regional Entities have determined that replacing the fill-in-the-blank Reliability Standards with continent-wide Reliability Standards is the optimal approach to addressing outstanding fill-in-the-blank Reliability Standards.  NERC has been steadily working to complete revisions to replace fill-in-the-blank Reliability Standards with continent-wide versions. These revisions have been completed for Reliability Standards in four areas:  1) emergency planning for system restoration and blackstart; 2) data for steady state and dynamic system modeling; 3) transfer capability requirements; and 4) underfrequency Load-shedding programs.  Revisions are in progress at the time of this writing for Reliability Standards in five additional areas: 1) analysis and mitigation of protection system misoperations (two projects, one scheduled for completion in 2014 and one in 2015); 2) undervoltage load-shedding (scheduled for completion in early 2015); 3) facility connection requirements (scheduled for completion in 2014);

		<ul> <li>4) disturbance monitoring (scheduled for completion in 2014); and</li> <li>5) data for modeling demand (scheduled for completion in 2014).</li> <li>Once these in-progress projects are completed, all of the fill-in the blank Reliability Standards will have been revised.</li> </ul>
85	Renews the directive that NERC submit quarterly reports on Reliability Standards development for an additional three years, with additional detail of required analysis.  The quarterly reports should include:  (i) The time required to complete projects,  (ii) The time required to complete projects initiated in response to NERC's urgent action progress, and,  (iii) The time required to complete projects in response to Commission directives.  The analysis should include data on the time required for each stage of the process.	NERC has been filing quarterly analyses of Reliability Standards voting results in Docket RR06-1 since May 2007. NERC continued to file these quarterly reports through and including the fourth quarter of 2013.
107-112	The Commission provided guidance regarding NERC's initiative to transition to results-based Reliability Standards.	During the assessment period, NERC launched several initiatives designed to evolve the Reliability Standards into "steady-state," which means a stable set of clear, concise, high-quality, and technically sound Reliability Standards.

107-108: the revised Reliability Standards should incorporate the Commission's directives from prior orders that address the substantive performance goals of the Bulk-Power System.

109: expanded background sections, purpose sections, or explanations of intent, should not contradict or seek to supersede or interpret the requirements within a Reliability Standard.

110: a requirement cannot be retired without its associated reliability benefit being addressed fully in another requirement or Standard.

111: revised Reliability Standards should include objective language rather than subjective modifiers, and should not include language requiring NERC or a Regional Entity to assess whether a registered entity intended to violate a Standard, nor whether a registered entity failed to perform due to, for example, negligence or human error.

112: revised Reliability Standards should not reduce Bulk-Power System reliability from that which would be required by the existing approved Standards.

Several important components of this evolution are: i) the results-based Reliability Standards initiative; ii) the P 81 project; iii) changes to the Standards Process Manual; iv) reorganization of the NERC standards department; and v) the work of the Panel.

107-108: Addressing Commission directives relating to Reliability Standards is a major priority to facilitate the transformation to steady-state Reliability Standards. As of December 2012, there were 191 outstanding Commission directives that were related to Reliability Standards development. More than half of the total number of Commission-issued directives were addressed during 2013. At the February 2014 meeting of the Standards Oversight and Technology Committee (SOTC), it was reported that 128 directives had been addressed by the end of 2013, with 107 remaining. NERC anticipates that 90% of Commission directives issued to date will be resolved between the end of 2014 and the first half of 2015.

See Statement of Activities and Accomplishments, page 11.

109: The NERC Standards Process Manual explicitly states that "[t]he only mandatory and enforceable components of a Reliability Standard are the: (1) applicability, (2) Requirements, and the (3) effective dates. The additional components are included in the Reliability Standard for informational purposes, to establish the relevant scope and technical paradigm, and to provide guidance to Functional Entities concerning how compliance will be assessed by the Compliance Enforcement Authority."

See NERC Standards Process Manual, page 8-9 Appendix 3A to the NERC Rules of Procedure (NERC ROP). 110: The IERP works in conjunction with the RISC to ensure requirements are not recommended for retirement so as to leave gaps in reliability. Additionally, NERC systematically manages the development of new Reliability Standards and revisions to standards, in areas of highest need and importance, through its rolling three-year Reliability Standards Development Plan. The RSDP is revised annually and identifies and prioritizes Reliability Standards development projects in the immediate three-year time horizon, taking into account, among other information, perceived gaps in the Reliability Standards, proposals for closing those gaps, and timing priorities for standards development projects. See Statement of Activities and Accomplishments, pages 12-15; 79. 111: The IERP applies content and quality criteria when assessing whether standards are steady-state or need revisions. Additionally, Section 4.6 of the NERC Standards Process Manual requires that NERC standards Staff conduct a quality review of the Reliability Standard, implementation plan, and violation risk factor (VRFs) and violation severity level (VSLs) in parallel with the development of the Reliability Standard and implementation plan, to assess whether the

documents are within the scope of the associated SAR,

whether the Reliability Standard is clear and enforceable as written, and whether the Reliability Standard meets the criteria specified in NERC's Benchmarks for Excellent Standards and criteria for governmental approval of Reliability Standards. Item #4 of NERC's Ten Benchmarks for an Excellent Reliability Standard requires that "[e]ach performance requirement shall be stated so as to be objectively measurable by a third party with knowledge or expertise in the area. Each performance requirement shall have one or more associated measures used to objectively evaluate compliance with the requirement. If performance can be practically measured quantitatively, metrics shall be provided to determine satisfactory performance."

See Statement of Activities and Accomplishments, page 9, 14; Section 4.6 of the NERC Standards Process Manual, Appendix 3A to the NERC ROP; The Ten Benchmarks of an Excellent Reliability Standard, available at: http://www.nerc.com/pa/Stand/Resources/Documents/10BenchmarksofExcellentReliabilityStandards.pdf

112: Section 4.6 of the NERC Standards Process Manual requires that NERC standards staff conduct a quality review of the Reliability Standard, implementation plan, and VRFs and VSLs in parallel with the development or modification of the Reliability Standard and implementation plan, to assess whether the documents are within the scope of the associated SAR, whether the Reliability Standard is clear and enforceable as written, and whether the Reliability Standard meets the criteria specified in NERC's Benchmarks for Excellent Standards and criteria for governmental approval of Reliability Standards.

		See Section 4.6 of the NERC Standards Process Manual, Appendix 3A to the NERC ROP.
102	NERC should determine whether there are new or modified Reliability Standards that would address identified gaps that may belong in the high priority group.	Two of the recommendations made by the IERP when it presented its report to the NERC Board of Trustees in August 2013 were that NERC address seven areas (high-level gaps) not currently addressed by the Reliability Standards, and complete standards development projects to address gaps within individual requirements. The IERP also made recommendations regarding compliance monitoring, prioritization for addressing the identified gaps, using risk to determine whether a future standard is needed, and use of the IERP's identified criteria to determine the quality and content as future standards are developed. The potential reliability gaps identified by the IERP are evaluated by the RISC and are assigned in some cases to active drafting projects. The IERP recommendations that apply to Reliability Standards that are not part of active drafting projects are assigned to teams that conduct periodic reviews of Reliability Standards in the future for consideration.  Additionally, NERC systematically manages the development of new Reliability Standards and revisions to Reliability Standards, in areas of highest need and importance, through its rolling three-year Reliability Standards Development Plan (RSDP). The RSDP is revised annually and identifies and prioritizes Reliability Standards development projects in the immediate three-year time horizon, taking into account, among other information, perceived gaps in the Reliability Standards, proposals for closing those gaps, and timing priorities for standards development projects.

		See Statement of Activities and Accomplishments, pages 13-15; 79.
74	Urge NERC to take measures, including hiring staff with the technical capability to independently advise the NERC Board of Trustees regarding the substantive content of a proposed Reliability Standard.	Although much of the work in the Reliability Standards development process is performed by committees and task groups comprised of volunteer technical experts, significant NERC professional staff resources are needed to facilitate and coordinate the work of industry volunteers, to administer the process and help ensure that it functions efficiently, and to provide input to support development of technically sound standards. NERC has budgeted 25.92 FTEs for the Reliability Standards Program for 2014, which is a slight decrease of 0.58 FTEs from the 2013 Budget and reflects the application of the 4% personnel attrition. In accordance with its 2013 Business Plan and Budget, NERC has added 3 positions in the Reliability Standards Program in 2013.  NERC has improved the composition of standard drafting teams by enhancing the selection process to identify, for each project, the necessary technical, writing, and project management expertise to form a balanced team that will foster improved effectiveness and enhanced efficiency. In addition, standard drafting teams now receive increased NERC staff support, including dedicated legal support for each project. Each standard development project is staffed by a lead
		Standard Developer, and many projects have a second supporting Standard Developer. Standard Developers provide project management and facilitation experience as well as additional skills, including technical writing, legal skills, and

outreach/consensus-building skills, to the SDT, which contributes to the development of high-quality Reliability Standards.  Additionally, Section 4.6 of the NERC Standards Process Manual requires that NERC Standards Staff conduct a quality review of the Reliability Standard, implementation plan, and VRFs and VSLs in parallel with the development of the Reliability Standard and implementation plan, to assess whether the documents are within the scope of the associated SAR, whether the Reliability Standard is clear and enforceable as written, and whether the Reliability Standard meets the criteria specified in NERC's Benchmarks for Excellent Standards and criteria for governmental approval o Reliability Standards. Item #5 of NERC's Ten Benchmarks for an Excellent Reliability Standard requires that "[e]ach reliability standard shall be based upon sound engineering an operating judgment, analysis, or experience, as determined by expert practitioners in the particular field."
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152	Encourages NERC to intensify its efforts to provide additional oversight and guidelines to assist registered entities in accurately determining that an asset is critical to the BPS (critical cyber asset identification).	The CIP Version 4 and 5 Reliability Standards move away from the use of the registered entities' risk-based assessment methodology in the identification of critical cyber assets.  In Order No. 791, the Commission approved NERC's proposed implementation plan for CIP Version 5 to bypass CIP Version 4 and move directly to CIP Version 5.  Recognizing that registered entities are in various stages of implementation of CIP Versions 3 and 4, NERC tackled the need for flexibility as well as the need to identify and address the associated transition challenges for the industry. Specifically, NERC offered guidance to help industry understand its roles and responsibilities and address technical and other implementation challenges associated with the changing nature of the CIP Reliability Standards. NERC prepared the <i>Cybersecurity Standards Transition Guidance</i> (Transition Guidance) document, issued on April 11, 2013 and revised on September 5, 2013, to clarify responsible entities' options and obligations to comply with CIP Reliability Standards during the transition from Version 3 to Version 4 while Version 5 was pending approval at the Commission.  See Statement of Activities and Accomplishments, page 30-31; <i>Cybersecurity Standards Transition Guidance</i> , available at:
		See Statement of Activities and Accomplishments, page 30-

154	NERC's proposed action item for "fast-track" interpretations of CIP Reliability Standards lacks specificity.  NERC states that this process would not require implementation of the full existing Reliability Standards development process, and could improve efficiency without sacrificing quality, but otherwise NERC does not provide any details how it would implement this proposal. While we support efforts to provide greater guidance on CIP implementation, we are concerned whether "fast track" interpretations will provide the consistency, clarity and transparency for meaningful assistance to entities that must comply with the CIP Standards.  If NERC develops this proposal, NERC should submit it to the Commission for review, possibly in the form of a petition for approval of modifications to NERC's ROP.	A CIP-specific fast-track process for interpretations of CIP Reliability Standards has not been developed during the assessment period. However, the revisions to the Standards Process Manual approved by the Commission on June 26, 2013 included a waiver provision that allows for modifications to the Reliability Standards development process for good cause, with five days' notice and reporting of the exercise of a waiver to the NERC SOTC. This waiver provision could be used to fast-track the development of an interpretation of a Reliability Standard, including a CIP standard.  See Statement of Activities and Accomplishments, page 21.
169	Regarding Event Analysis, directs NERC to establish criteria it will use to select a subset of events, which should focus on those with	NERC has developed a voluntary Event Analysis process that delivers quality, timely and actionable lessons learned to registered entities. Development of the Event Analysis

the highest impact to reliability, to provide important "lessons learned" and submit the criteria in the informational report.

process was led by the Event Analysis Subcommittee (EAS), a cross-functional group of industry experts. The Event Analysis process begins with a registered entity making an initial assessment of an occurrence and determining if the occurrence falls within one of five qualifying event categories. The event category is determined by weighing the level of significance of a qualifying event and its impact on the interconnected BPS. After a qualifying event occurs, the applicable Regional Entity holds a planning meeting with all involved parties, including other registered entities. If a qualifying event is categorized as Category 3 or higher, the registered entity will prepare an Event Analysis Report (EAR), in which the registered entity describes the sequence of events and identifies causal factors and appropriate corrective actions. The registered entity then submits the EAR to the applicable Regional Entity(ies) for review, and then to NERC. The registered entity, in collaboration with the ERO, drafts the proposed lessons learned from the event and submits them to the applicable Regional Entity. Once the event analysis is complete, NERC shares any lessons learned with industry by publishing them as soon as practical. NERC staff analyzes EARs to identify reliability risks, trends, and potential gaps in Reliability Standards, compliance, and other programs. NERC also reviews the EARs to assign descriptive cause codes, which assist in identifying trends and corrective actions that will prevent recurrence of similar events.

Since initial implementation of the Event Analysis process in 2010, there have been more than 388 qualified events reported to the ERO and more than 77 lessons learned, including 14 published in 2013.

		See Statement of Activities and Accomplishments, pages 62-63.
170-171, 173-178	170: Directs NERC to work with the Regional Entities to ensure that they provide to Commission staff sufficient and timely information on each event. NERC must report on steps it will take to implement this directive in the informational report.  171: Directs NERC to develop communication protocols between NERC, the Commission and the Regional Entities for use during events and report on its progress in the informational filing.  174: If a Compliance Violation Investigation is initiated, it should be conducted concurrently with an Event Analysis and both processes should begin as soon as possible to the extent necessary.  175: maintain the respective focuses of the CVI and Event Analysis to ensure independence of the roles each mechanism is designed to fulfill.  176: In order to create more efficiency in the event analysis and CVI processes, all event analysis materials obtained by the event analysis team, including requests for	170 - 171: NERC staff compiles and provides a daily summary of newly reported qualifying Events to FERC staff, NERC's Event Investigation group under Compliance Operations, and Regional Entity situational awareness and event analysis points of contact. Event status is reviewed in a biweekly conference with NERC and FERC staff, and in a separate weekly conference call with NERC and Regional Entity staff.  174 - 178: Compliance Investigations (formerly CVIs) are governed by Section 3.4, Appendix 4C of the NERC ROP. Event Analysis is governed by Rules 807 and 808 of the NERC ROP, along with Appendix 8. These are two separate processes within NERC.

	information and responses, should be sent, at the same time as issued or collected, to the compliance staff in each applicable Regional Entity and to NERC compliance staff.  These materials, insofar as they relate to a U.S. registered entity, also should be available to Commission staff upon request.  177: Any communication between an event analysis team and a corresponding CVI team generally should be one-way only: from the event analysis team to the CVI team. An exception to this practice would be appropriate only for factual information collected by a CVI team that bears on an important industry advisory that the event analysis team would make (or recommend that NERC make) as part of an initial event analysis determination.  178: NERC shall report on the steps it has taken to clarify the interface between event analyses and compliance activities, including Compliance Investigations, in response to the Commission's guidance in the informational filing.	
126	Directs NERC to continue its oversight of Regional Entity audits with NERC staff that are technically proficient.	As outlined in the NERC ROP and the Regional Entity Delegation Agreements, NERC is responsible for oversight of the Regional Entities compliance monitoring

program. NERC restructured its oversight process to include a participatory role during Regional Entity compliance. In addition to oversight engagements, NERC has developed the Key Reliability Standard Spot Check (KRSSC), performs capability assessments of the Regions, reviews reports submitted by the Regions and conducts two workshops per year in addition to other auditor and lead auditor training. The KRSSC is a study of a single Reliability Standard and a sampling multiple audits across all eight regions to determine consistency of approach. The results of the study are then provided to the regions to identify improvement opportunities.

Starting in 2012 NERC began the process of reviewing the background, education and credentials of the Regional Compliance Auditors and providing feedback to Regions. NERC reads each audit report submitted by the Regions prior to posting to FERC.

NERC conducts auditor workshops, performs lead auditor training and provides resources to enhance the consistency of auditor practices across the Regional Entities as well as to improve the technical proficiency of those NERC staff that provide oversight of the Regional Entities' compliance monitoring activities. Finally, NERC participates in the ERO and Compliance and Enforcement Management Group (ECEMG) on a monthly basis where audit activities and projects that improve audit processes and identify opportunities to drive consistency are discussed.

*See also* Rules 402 & 403 of the NERC Rules of Procedure; NERC's Evaluation of the Regional Entities, pages 16-21.

127	Directs NERC and Regional Entities to have their staff, and Commission staff where applicable, discuss the appropriate role of observers during their pre-audit meetings or conferences.	NERC Rule of Procedure 402 states that Applicable Governmental Authorities will be allowed to participate as an observer in any audit conducted by NERC of a Regional Entity's Compliance Monitoring and Enforcement Program. A representative of the Regional Entity being audited will be allowed to participate in the audit as an observer.  Section 3.1.5.3 of Appendix 4C to the NERC ROP also details the role of observers.  See Rule 402 of the NERC Rules of Procedure; Section 3.1.5.3 of Appendix 4C to the NERC Rules of Procedure.
220	Direct NERC to explain how it would implement risk-based approaches to compliance activities and at the same time complete its currently-required audit cycles.	A key, strategic transformation that NERC, in collaboration with the Regional Entities and stakeholders, embarked upon during the assessment period is the construction of a risk-based model for compliance monitoring and enforcement. This risk-based approach enables NERC to focus ERO and industry resource investment on the most important issues to BPS reliability.  See Statement of Activities and Accomplishments, pages 49-61.
153	NERC should ensure that there is quality, uniformity and consistency amongst the Regional Entities when conducting	The NERC CIP audit staff works closely with the Regional Entity CIP staff and provides guidance to the ERO CIP Auditors. NERC provided direct feedback in the past on audit reports and has participated in post-audit phone calls to

	compliance audits and spot checks relating to CIP Reliability Standards.  NERC should consider the worthiness of an ongoing "accreditation" of qualified auditor candidates through continued education. A program that establishes the requisite level of knowledge and skills needed to maintain necessary levels of technical expertise on a continuous basis should be the goal of the CIP audit program. These qualifications should be designed to verify the knowledge and skills of the auditor in the area of CIP, control systems and information technology.	review best practices, lessons learned and staff qualifications. In order to share best practices and promote consistency, NERC has utilized Regional Entity working groups such as the CIP Compliance Working Group ("CCWG") and the Enforcement and Compliance Executive Management Group ("ECEMG") to discuss technical and policy CIP issues.  See also Statement of Activities and Accomplishments, pages 53, 60-61, for a discussion of the RAI Handbook and Audit checklist, as well as auditor qualifications.
118	We suggest that NERC and Regional Entities consider providing ongoing training for their compliance auditors on effective auditing techniques. We expect that NERC's establishment of a Regional Operations Group that focuses on auditors will rapidly improve audit consistency and performance.	As part of its Compliance Operations function, NERC is responsible for supporting the development of qualified and trained compliance operations and auditing staffs at both NERC and the Regional Entities. In addition to the development of a common set of auditor qualifications, NERC ensures the proper qualifications of personnel for auditing and other essential compliance roles through training.  See Statement of Activities and Accomplishments, pages 60-61.
121	Encourages NERC to continually review its RSAWs to improve their quality and usefulness.	Prior to 2013, NERC developed RSAWs after regulatory approval of a Reliability Standard and at least six months before the Reliability Standard's enforcement date. Today, RSAWs are written concurrently with new Reliability

		Standard development projects. Each Reliability Standards project is assigned dedicated staff support and led by compliance. NERC compliance staff are coordinating with Regional Entity staff. This increased and ongoing coordination will help ensure that standard drafting teams, compliance staff and RSAWs are aligned with the intent of Reliability Standards.  Statement of Activities and Accomplishments, pages 21-23.
		Statement of Activities and Accompnishments, pages 21-23.
180	Directs NERC to continue developing scenario analysis in the long-term reliability assessments.  The Commission requires NERC to update its reliability assessment protocols to establish a requirement for an annual scenario analysis and to file this update in the informational filing.	The latest version of the NERC "Reliability Assessment Guidebook" is Version 3.1 (dated August 2012). This version was approved by the Planning Committee in June 2012. This version makes more explicit the requirement for an annual scenario analysis to be included in all future Long-Term Reliability Assessment ("LTRA") reports.  Since 2009, the following LTRAs include scenario analyses: 2009 Long-Term Reliability Assessment 2010 Long-Term Reliability Assessment 2011 Long-Term Reliability Assessment 2012 Long-Term Reliability Assessment  Additional scenarios completed as part of the Reliability Assessment program in support of the Long-Term Reliability Assessment:  • 2013 Special Reliability Assessment: Accommodating an Increased Dependence on Natural Gas for Electric Power:  http://www.nerc.com/pa/RAPA/ra/Reliability%20Ass
		essments%20DL/NERC_PhaseII_FINAL.pdf

		2011 Potential Impacts of Future Environmental Regulations: <a href="http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA%20Section.pdf">http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA%20Section.pdf</a> <a href="https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA%20Section.pdf">https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA%20Section.pdf</a>
		2010 Special Reliability Scenario Assessment:     Resource Adequacy Impacts of Potential U.S.     Environmental Regulations: <a href="http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA_Scenario_Final_v2.pdf">http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/EPA_Scenario_Final_v2.pdf</a>
		2010 Special Reliability Scenario Assessment:     Potential Reliability Impacts of Swift Demand Growth     After a Long-Term Recession:     http://www.nerc.com/pa/RAPA/ra/Reliability%20Ass     essments%20DL/NERC_Swift_Scenario_Aug_2010.p     df
		2010 Reliability Impacts of Climate Change Initiatives: Technology Assessment and Scenario Development: <a href="http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/RICCI_2010.pdf">http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/RICCI_2010.pdf</a> <a href="https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/RICCI_2010.pdf">https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/RICCI_2010.pdf</a>
		See also Statement of Activities and Accomplishments, pages 70-72.
183	Directs NERC to develop a plan to address capacity and energy in its reliability assessment methodology and a timeline for executing the plan, and submit the plan and	NERC implemented probabilistic assessments in the Long- Term Reliability Assessment ("LTRA") in 2012 with a trial phase based on voluntary participation occurring in 2011.

timeline as part of the 2011 Long-Term	A detailed plan was included in the 2011 LTRA. In
Reliability Assessment and file its preliminary	summary, the plan includes the following milestone dates:
plan and timeline in the informational filing.	(i) Request for participation in voluntary trial period (March
	2011)
	(ii) Draft methods due to NERC (May 2011)
	(iii) Results of 2011 study (October 2011)
	(iv) Trial view complete (March 2012)
	(v) 2011 trial results to be included in 2012 LTRA (October
	2012)
	(vi) Request for full participation (March 2012)
	(vii) 2012 results to be included in 2013 LTRA (October
	2013)
	Additionally, appropriate modifications were made to
	NERC's "Reliability Assessment Guidebook" to reflect these
	changes in the reliability assessment process.
	and the second was a second process.
	NERC Completed the "Pilot" assessment in July of 2011:
	http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessment
	s%20DL/2012_ProbA.pdf
	5/020DIAZOTZ_TTOOTH_DGT
	NERC completed the first NERC-Wide probabilistic study
	using the 2012 LTRA reference case in July of 2013:
	http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessment
	s%20DL/NERC_2012_Probabilistic_Assessment_Final.pdf
	5/02022/1/DitO_2012_1100u0inotio_1100c00inotic_1 indi.pdf
	These probabilistic assessments will be completed on a
	biannual basis.
	oranitati oasis.
	The 2013 Long-Term Reliability Assessment was published
	in December 2013.
	in December 2013.

		http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/2013 LTRA FINAL.pdf
185	Directs NERC to consider establishing permanent databases that could be automatically populated with:  (i) new transmission projects data from the Regional Entities, (ii) generation interconnection queue data, and, (iii) other data relevant for reliability assessment.  The Commission requires NERC to discuss the feasibility of this improvement, and to the extent databases covering this information already exist, discuss how to better utilize or integrate that information into the Reliability Assessments in the informational filing.	NERC and the Regional Entities are working on the development of the Reliability Assessment Data System ("RADS"). While this automated data system is still under development, significant improvements to data collection and validation have already been made at the Regional Entity level to support RADS in 2014.  The NERC Board of Trustees has also approved mandatory data reporting concerning conventional generating units, transmission outages, and demand response availability. NERC collects this data using its Generating Availability Data System ("GADS"), Transmission Availability Data System ("TADS"), and Demand Response Availability Data System ("DADS") databases. This unique series of databases is used to collect, record, and retrieve operating information tracking, reporting, analyzing, and improving the reliability performance of the BPS. Regional Entity staff work with NERC staff to ensure the data submitted by entities is timely, complete, and accurate.  See NERC's Evaluation of the Regional Entities, pages 143,145.

NERC should continue to seek recognition in Canada and Mexico, as appropriate and keep the Commission informed about the status of those efforts.  NERC continues to engage in substantial efforts to gain and maintain recognition as the electric reliability organization in Canada and Mexico.  In Canada, where by its Constitution the regulation of electricity is primarily within the jurisdiction of each province rather than the national government, NERC's activities to obtain and maintain recognition are conducted on a province-by-province basis. Depending on the particular circumstances of each province, NERC has gained recognition through statutes or other provisions of provincial law, or through a memorandum of understanding with appropriate entities in the province.  With respect to Mexico, the Comisión Federal de Electricidad (CFE), through the Centro Nacional de Control de Energia (CENACE), and the Area de Control Baja California (ACBC), have entered into a membership and operating agreement (MOA) with WECC. The MOA provides for WECC to assist CENACE and ACBC in monitoring compliance by Designated Entities (the Mexican equivalent of U.S. registered entities) with Mexico Reliability Standards for Baja California, Mexico. CENACE has approved a total of ten Mexico Reliability Standards. Pursuant to the MOA, WECC monitors compliance with Mexico Reliability Standards, but does not have enforcement or registration (designation) authority for CFE. WECC provides compliance monitoring, reviews proposed and completed mitigation plans, and provides assessment recommendations with respect			
to alleged violations.	57	Canada and Mexico, as appropriate and keep the Commission informed about the status of	maintain recognition as the electric reliability organization in Canada and Mexico.  In Canada, where by its Constitution the regulation of electricity is primarily within the jurisdiction of each province rather than the national government, NERC's activities to obtain and maintain recognition are conducted on a province-by-province basis. Depending on the particular circumstances of each province, NERC has gained recognition through statutes or other provisions of provincial law, or through a memorandum of understanding with appropriate entities in the province.  With respect to Mexico, the Comisión Federal de Electricidad (CFE), through the Centro Nacional de Control de Energia (CENACE), and the Area de Control Baja California (ACBC), have entered into a membership and operating agreement (MOA) with WECC. The MOA provides for WECC to assist CENACE and ACBC in monitoring compliance by Designated Entities (the Mexican equivalent of U.S. registered entities) with Mexico Reliability Standards for Baja California, Mexico. CENACE has approved a total of ten Mexico Reliability Standards. Pursuant to the MOA, WECC monitors compliance with Mexico Reliability Standards, but does not have enforcement or registration (designation) authority for CFE. WECC provides compliance monitoring, reviews proposed and completed mitigation

		See Statement of Activities and Accomplishments, pages 88-90. See generally Attachment 1.
195	Directs NERC to include a report in the informational filing detailing the feasibility of establishing a NERC-led Strategic Planning initiative utilizing multiple year budgets.	NERC and the Regional Entities jointly develop a three-year rolling <i>ERO Enterprise Strategic Plan</i> which includes goals, objectives and deliverables over the planning period and is used in the development of each entity's business plan and budget. The development and implementation of these common formats and methodologies has helped to continuously improve the efficiency of the business plan and budget preparation process and enabled NERC and Regional Entity financial and accounting staffs and senior management to devote greater attention to more substantive budget issues. See NERC's Evaluation of the Regional Entities, pages 155-156.
138, 217	138: Agrees that NERC should develop performance metrics that help to ensure consistent implementation of the compliance enforcement process across the Regional Entities.  217: Agree that the development of reasonable metrics for assessment of the Regional Entities' performance of their compliance functions will increase efficiency of the enforcement process, provide incentives for effectively, timely handling of Regional Entity caseloads, and furnish important data for the next Performance Assessment.	NERC and the Regional Entities continue to focus efforts on the development of a comprehensive and interrelated suite of metrics.  Through the Enforcement Functional Group ("EFG," formerly "ESMWG") forum, NERC and the Regional Entities have worked together to develop a set of enforcement metrics for tracking of the ERO key compliance enforcement activities. A list of final metrics was agreed upon and a set of common parameters (i.e. business rules) was developed to ensure that metric measurements by NERC and the Regional Entities remained consistent. Parameters agreed upon included violation start date, dismissal date, violations active and in inventory among the Regional Entities and NERC.

NERC and the Regional Entities developed four metrics that measure the performance of NERC and each of the Regional Entities with respect to enforcement processing. These metrics are as follows: Caseload Index, Violations in Inventory, Violation Aging, and Mitigation Activity Aging.

Future initiatives can take up discussion of additional metrics to add to this initial set, particularly in the areas of measuring enforcement quality and effectiveness.

The Caseload Index is a metric that computes the number of months that it would take to clear the violations that are either in the Regional Entity's inventory, NERC's inventory, or the ERO's inventory based upon the respective average monthly processing rate over the preceding twelve-month period. This metric is useful in evaluating the efficiency of processing violations over time.

The Violations in Inventory metric is related to the Caseload Index but is also reported separately. It shows how many violations are in the Regional Entities, NERC, and the ERO caseload. Month to month comparisons of violations in inventory can show how the workload of each Regional Entity, NERC, and ERO is changing.

The third metric, Violation Aging, identifies where older violations, which have not been filed with FERC or otherwise resolved, are located. The Violation Aging chart, which represents this metric graphically, takes all violations in the ERO inventory and shows by region how many violations were discovered in each year from 2007 to 2013.

		The fourth metric, Mitigation Activity Aging, identifies the status of mitigation activity based upon the age of violations.  NERC's BOTCC receives quarterly updates on these enforcement metrics. The latest update was presented to the BOTCC in May 2014.  The ERO Enterprise Strategic Plan 2014-2017 includes ERO Enterprise performance metrics that will be initially used in 2014. These metrics are intended as indicators of the overall effectiveness of the ERO Enterprise in achieving its mission and the goals and objectives outlined in the ERO Enterprise Strategic Plan, 2014-2017. There are four overarching metrics focused on overall effectiveness in addressing bulk power system risks and improving reliability. In addition, there are a number of supporting measures that assess the effectiveness of the key operational elements of the ERO Enterprise. The Caseload Index and the Mitigation Activity Aging are included in these supporting measures.  NERC reports the results of these metrics on an ERO Enterprise-wide basis, and also, as applicable, distinguishes results for NERC and individual regions.
215	NERC must provide training to Regional Entities and disseminate to each Regional Entity information and direction resulting from its review of proposed violations and penalties from all eight Regional Entities.	NERC conducts separate workshops for Regional Entity staff and industry members. The workshops are offered in February and September of each year. The workshop includes instructions and practical examples and exercises on compliance and enforcement issues including risk assessment under various FFTs, SNOPs and NOPs scenarios.

On August 29, 2013, NERC provided training to industry and Regional Entities on finding and analyzing available public NERC enforcement data in order to identify pertinent reliability issues and trends. The training described the raw and analyzed data available on the NERC website. It also showed where NERC's compliance and enforcement trends documents, annual reports and directives could be found.

NERC provides feedback and training to the Regional Entities on a monthly basis during its review of the proposed violations and penalties. This ongoing process allows NERC and the Regional Entities to target specific issues applicable to each specific Regional Entity.

NERC disseminates to each Regional Entity information and directions on pressing compliance and enforcement matters. For example, in 2013, NERC provided guidance on the FFT process twice. The first guidance document was disseminated in March and explained how to address risk in FFT situations. The document included an updated template and requirements for FFT filings. The second guidance was issued in July, following the Commission's Order approving NERC's proposed enhancements to the FFT process. The guidance included a detailed description of the updated FFT process and associated FFT templates.

Furthermore, NERC conducts periodic spot checks on various aspects of the Regional Entities' processes and outcomes. For example, NERC conducted a spot check of Letters of Dismissals from the eight Regional Entities and disseminated issues identified during the spot check, and the potential areas of improvement. NERC developed standardized templates

		for Letters of Dismissals and distributed them to the Regional Entities along with its findings. NERC has also scheduled spot checks of Mitigation Plans and Settlements Agreements issued by the Regional Entities and will distribute appropriate guidelines based on its findings.
216	Support the suggestions of the Regional Entities for the NERC Board of Trustees Compliance Committee to increase communications with Regional Entities regarding its decisions.	NERC has increased communications with the Regional Entities by providing various forums and channels for communication.  NERC disseminates compliance information and guidance to the eight Regional Entities mainly through the Enforcement Functional Group ("EFG") and the Compliance Monitoring Process Working Group ("CMPWG"), both of which include representatives from each Regional Entity. The groups meet regularly to discuss compliance issues with NERC, and receive written guidance directives, as appropriate.  Furthermore, NERC Enforcement staff is available to answer questions and respond to inquiries from the Regional Entities. For example, in addition to the written guidance on the enhanced FFT process, staff has provided the Regional Entities with additional guidance and assistance throughout the new FFT implementation process.  See also NERC's Evaluation of the Regional Entities, pages 66-69.
217	Directs NERC to report on the timeline and plan for development of a non-public central compliance data hub, including details	The Regional Entities have implemented compliance data systems to collect and track violation data. These systems interface with NERC's centralized database. At the Regional

## Attachment 5: Status of Areas for Improvement Identified in the Order on the ERO Three-Year Performance Assessment

	regarding how it will operate, what information it will contain, and whether it will supplant existing processes for providing non-public data to the Commission.	Entity level, these systems have enabled substantial enforcement processing efficiencies. At the NERC level, these systems have enhanced NERC's ability to identify compliance and enforcement trends and compile accurate metrics.  See NERC's Evaluation of the Regional Entities, page 69.
218-219	Provides that if NERC still wants to pursue a "warning ticket" mechanism, it must explain how the mechanism would work without running afoul of the concerns raised. NERC is free to provide that explanation in the informational filing or, if it chooses to take additional time to develop the mechanism, in a later filing.	NERC has not pursued a "warning ticket" mechanism. FFTs, for example, are remediated issues, are recorded, and can be used in a subsequent penalty matter.  See generally NERC's Evaluation of the Regional Entities, pages 66-69.
134	NERC should continue to encourage, and develop incentives for, registered entities to self-report potential violations to the Regional Entities.	Whether or not the registered entity self-reported is a factor considered under the NERC Sanction Guidelines.  See Section 3.3.3, Appendix 4B to the NERC Rules of Procedure; See also Attachment 1, page 29.