

**NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION**

**ATTACHMENT 4**

**TO**

**THREE-YEAR ERO PERFORMANCE ASSESSMENT**

**JOINT REGIONAL ENTITY SELF ASSESSMENT**

**And**

**REGIONAL ENTITY STATEMENTS OF**

**ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**

# **Joint Regional Entity Self-Assessment**

**July 1, 2009**

# Joint Regional Entity Self-Assessment

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# Introduction

## Purpose

In its order approving the North American Electric Reliability Corporation (“NERC”) as the Electric Reliability Organization (“ERO”), the Federal Energy Regulatory Commission (“FERC”) directed NERC to conduct an assessment of its performance after the initial three years of operation as the ERO, and to include an assessment of the Regional Entities.<sup>1</sup> This report provides a joint review of key issues and consensus recommendations on behalf of the eight Regional Entities<sup>2</sup> and supplements the accompanying individual Regional Entity statements of activities and achievements.

The purpose of this report is to:

- Provide the Regional Entity assessments, based on their experience over the past three years, of the effectiveness of the self-regulatory framework and delegation model.
- Describe the results to date, including achievements, key issues and challenges, and opportunities to improve the Regional Entities’ execution of delegated functions.
- Provide the Regional Entity assessment of NERC’s performance as the ERO, as required by FERC.<sup>3</sup>
- Respond to the broad issues identified in the NERC assessment of the Regional Entities (region-specific issues are addressed in the statements of activities and achievements of each Regional Entity).
- Respond to the broad concerns identified by reliability stakeholders through their inputs to the industry survey<sup>4</sup> (region specific issues are addressed within each Regional Entity’s statements of activities and achievements).
- Present Regional Entity recommendations for improvements.

## Report Organization

The report begins with a review of the self-regulatory framework and delegation model, from the viewpoint of the Regional Entities. The report then assesses the general performance of the Regional Entities in executing their responsibilities under their delegation agreements and addresses such issues as governance, independence, and

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<sup>1</sup> *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204 at P 187-188, *order on reh’g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

<sup>2</sup> The Regional Entities are: Florida Reliability Coordinating Council (“FRCC”), Midwest Reliability Organization (“MRO”), Northeast Power Coordinating Council (“NPCC”), ReliabilityFirst Corporation (“RFC”), SERC Reliability Corporation (“SERC”), Southwest Power Pool Regional Entity (“SPP RE”), Texas Regional Entity (“TRE”), and Western Electricity Coordinating Council (“WECC”).

<sup>3</sup> See Order No. 672 at P 188.

<sup>4</sup> See Industry Survey. As with the April 27 posting, the tabulated results to the survey questions will be Attachment 5 to the 3-Year Performance Report.

non-statutory functions. Included is a summary of the key milestones achieved in the transformation of the Regional Entities and significant challenges encountered along the way.

The remainder of the report then addresses each of the delegated functional areas and identifies key issues and opportunities for improvement. An executive summary of achievements and recommendations for improvement is provided in the next section, for ease of reference.

# Major Achievements and Recommendations for Improvement

## Summary of Achievements

Although this report is focused on identifying recommendations for improvement, it is important to first recognize that the ERO and the Regional Entities have effectively executed their responsibilities as delegated by FERC in the United States and by provincial authorities in Canada. In particular, the Regional Entities have met the requirements of Order 672, Order 693,<sup>5</sup> FERC's order approving the delegation agreements,<sup>6</sup> memoranda of understanding with provincial authorities, and other applicable orders and requirements. In addition, the Regional Entities have adhered to the ERO rules of procedure and the terms of their delegation agreements. The Regional Entities also believe that NERC has, without exception, met its obligations as the ERO.

The Regional Entities concur with NERC's assessment that it is too early to measure improvements in the reliability performance of the bulk power system. The Regional Entities further agree that the major successes in the first three years of the ERO are primarily related to the implementation of the necessary structures and processes to ensure reliability going forward. Several significant accomplishments include:

1. The Regional Entities have registered 1,839<sup>7</sup> owners, operators, and users of the bulk power system to provide clear notice to these entities that they are subject to mandatory reliability standards. This number is at least six times greater than the number of entities that previously followed the voluntary operating and planning policies, standards, criteria and guides published by NERC and includes a significant number of entities in the United States that were not previously within FERC jurisdiction.
2. The Regional Entities have completed the processing of 5,039 compliance violations that were self-reported prior to the start of mandatory enforcement of reliability standards on June 18, 2007. With independent verification by the Regional Entities that all but 48 of the mitigation plans to cure these pre-existing violations have been completed, risk to the reliability of the bulk power system has to a significant degree been reduced.
3. Since June 18, 2007, when the standards became mandatory, the Regional Entities have conducted nearly 600 audits of registered bulk power system owners, operators, and users to verify compliance with reliability standards. Regional Entities have reported over 600 possible violations from these audits. This independent verification of compliance is in addition to thousands of periodic self-certifications of compliance to specific standards that have been provided by registered entities.

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<sup>5</sup> See *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242, order on reh'g, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>6</sup> See *North American Electric Reliability Council, et al.*, 119 FERC ¶ 61,060 (2007).

<sup>7</sup> Number of unique NERC Compliance Registry entries posted on the NERC website effective June 23, 2009.

4. Since the inception of mandatory standards, registered entities have self-reported or self-certified approximately 1,400<sup>8</sup> possible violations of standards, most of which were timely corrected. This culture of self-reporting and mitigation is a direct result of work by NERC and the Regional Entities to promote a strong compliance culture among bulk power system owners, operators, and users.
5. NERC has engaged more than 300 industry experts in drafting reliability standards through an open, balanced, and inclusive standards development process. In addition to the 83 reliability standards originally approved by FERC in Order No. 693,<sup>9</sup> NERC has since received approval of 12 new standards and dozens of revised standards. Additionally, each Regional Entity has established a FERC-approved process for developing any needed regional reliability standards, and 8 regional reliability standards have received FERC approval.
6. NERC and the eight Regional Entities have adopted a uniform Compliance Monitoring and Enforcement Program, including hearing procedures, and a set of Sanction Guidelines. These procedures provide assurance of clearly defined protocols for the discovery, prosecution, and appeal of alleged violations of reliability standards. To date, FERC has accepted 61 Notices of Penalty addressing 164 enforceable violations that were processed and filed using these procedures.
7. NERC has established strong oversight through establishment of an independent board and adoption of a set of Rules of Procedure, both of which have been approved by FERC.<sup>10</sup> Each Regional Entity has established a FERC-approved governance using a balanced stakeholder board, a hybrid board including independent directors, or a wholly independent board. Each Regional Entity has further established necessary procedures and safeguards to execute its delegated functions effectively and in the public interest.
8. NERC and the Regional Entities have established arrangements for the performance of similar delegated functions in the various provinces of Canada (WECC, MRO, and NPCC perform these functions).
9. NERC and the Regional Entities have performed over 100 event analyses for the purpose of determining lessons learned and opportunity for reliability improvements and issued 25 alerts addressing reliability issues.
10. NERC and the Regional Entities have provided extensive outreach and communication with bulk power system owners, operators, and users regarding the reliability standards and the compliance program.

The individual Regional Entity statements of activities and achievements provide further detail on the major accomplishments of each region in the first years of operation under the delegation agreements.

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<sup>8</sup> Since June 18, 2007 slightly more than half of the possible 2,764 violations reported to NERC by the regions have been self-reported by registered entities.

<sup>9</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242, *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>10</sup> *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062, *order on reh'g and compliance*, 117 FERC ¶ 61,126 (2006).

## Summary of Improvements Needed and Recommendations

The following is a summary of key areas for improvement with specific recommendations of the Regional Entities.

1. The self-regulatory model adopted by Congress, which combines significant industry input with appropriate regulatory oversight, is the best model for ensuring the reliability of the bulk power system, is working effectively, and therefore should remain in effect.
2. The existing international reliability assurance structure, utilizing the NERC independent board to provide vision and direction, the ERO to provide leadership, guidance and oversight, and the Regional Entities to implement delegated authorities, is the best model for ensuring the reliability of the bulk power system, is working effectively, and therefore should remain in effect.
3. NERC and Regional Entities should continue to strive toward mutual openness and cooperation, with strong conviction and singularity of purpose, to promote mutual success of their respective responsibilities in ensuring the reliability of the bulk power system.
4. To improve the delegation process, NERC and the Regional Entities should work together to update the delegation agreements, which are due for renewal in May 2010, to provide a clearer division of responsibilities and decisional authorities, both related to the performance of statutory functions and oversight of those functions, and to provide effective mechanisms to resolve routine differences.
5. The existing governance structures of the Regional Entities are working effectively – policy change regarding governance is unnecessary due to the existing safeguards that are in place.
6. With full conviction that conflicts of interest with statutory functions should not exist, Regional Entities recommend that the issue of whether a potential conflict of interest does exist should be resolved based on the facts on an individual basis with the affected Regional Entity, and that a change in policy is unnecessary to address the issue.
7. To ensure development of reliability standards that provide for an adequate level of reliability of the bulk power system:
  - a. NERC should on a priority basis finalize its performance requirements necessary for the development of the regional fill-in-the-blank reliability standards so that Regional Entities may expedite completion of any necessary regional reliability standards; and
  - b. NERC should prioritize its reliability standards development activity and compliance review by focusing on those standards that are performance-based, rather than documentation-based, and that have the greatest potential to mitigate risk to reliability, and furthermore NERC should consider reformulating less critical standards into guides or technical references.



8. To provide a more efficient registration of bulk power system owners, operators, and users that focuses on material impacts to reliability:
  - a. NERC and the Regional Entities, in consultation with stakeholders, should review the registration criteria to determine if there should be a different threshold for materiality to the reliability of the bulk power system and to determine if compliance resources could be better prioritized by modifying the registration criteria; and
  - b. NERC should consider a more precise long-term solution of increasing the granularity of registration so that it focuses on the requirement level and includes registration by bulk power system facility, or classes of facilities.
9. To improve performance and build upon the initial successes of the Compliance Monitoring and Enforcement Program:
  - a. NERC should, in consultation with Regional Entities and using a deliberate change management and feedback process, refine its implementation of decentralized compliance monitoring and enforcement by providing clear standardized procedures, active controls, clearly articulated performance metrics, and checks or audits of performance to guide Regional Entity performance of delegated compliance functions;
  - b. NERC and Regional Entities should operate together in a mutually supportive manner, with more transparent, clear, and frequent communications among the compliance authority staffs;
  - c. NERC should not replicate the initial investigatory work performed by a Regional Entity when considering a reliability standards violation, as sometimes occurred in the initial start up period, but rather should establish clear, transparent metrics for review and acceptance of Regional Entity actions, except in unusual or problematic cases or where assistance is requested by the Regional Entity;
  - d. NERC should communicate clear expectations to Regional Entity compliance audit and enforcement staffs and provide comprehensive training, even possibly to the extent of a compliance audit and enforcement “training academy”, to promote greater consistency in implementation and interpretation of standards;
  - e. NERC and Regional Entities should collaborate in the development of compliance information systems that provide seamless flow and processing of compliance information from registered entities, through the regions, to NERC;
  - f. Regional Entities are bound to apply the plain language of a standard when conducting compliance reviews rather than engage in extemporaneous interpretations of intent and, therefore, when expectations associated with reliability standards appear to exceed what is clearly identified in the approved standard, NERC should make all registered entities aware of such expectations;

- g. NERC and Regional Entities should, through a single coordinated process, provide transparent information to help registered entities better understand compliance requirements and processes, while still protecting confidentiality rights and due process, by publicly sharing lessons learned, providing examples of what is necessary to demonstrate sufficient evidence of compliance, and identifying common mode failures that have led to past non-compliance;
  - h. NERC and Regional Entities should review compliance resource requirements to target resource additions to resolve key bottleneck areas in the processing of alleged violations, while simultaneously seeking greater efficiencies by prioritizing cases, increased automation, etc.;
  - i. NERC and Regional Entities should adopt risk-based approaches to prioritize compliance monitoring, particularly auditing, and enforcement activities and focus a greater share of resources on a smaller number of requirements that are most important to reliability;
  - j. NERC and Regional Entities should adopt procedures for the expedited processing of minor or document-related violations;
  - k. For uncomplicated cases, such as those that have relatively low penalty amounts, NERC should establish baseline penalty amounts as a guide for each requirement violated, thereby reducing the disproportionate burden of effort in the region and minimizing inconsistencies in determining penalties for minor violations with penalties on the order of a few thousand dollars;
  - l. For more serious violations, NERC should have the expectation that penalties will vary from case to case based on the facts of the case and judgment of the Regional Entity staffs; although the penalties should be scaled to the seriousness of the violation and should consider all of the aggravating and mitigating factors;
  - m. The NERC Board Compliance Committee should select unique cases with precedential value and issue their decision, either approving or remanding a case, to all Regional Entities (non publicly) and regardless of whether the board develops a written opinion on a case, all decisions of the board, including remands, should be shared with all of the Regional Entities as a method of further delineating minimum expectations;
  - n. NERC should offer consultation upon request from the Regional Entity for assistance in determining a violation or penalties and sanctions for a complex case or for guidance in developing the record for a case, but should otherwise allow Regional Entities to independently develop cases for NERC approval.
10. Regional Entities recommend that FERC should indicate that it will provide the forum for determining legal challenges of jurisdiction between federal agencies and not expect that such matters should be heard by a Regional Entity hearing body or a NERC appellate body.

# Summary of Existing Regional Entities

## Background on Delegation

A Regional Entity is an organization that has been delegated certain statutory functions of the ERO . The ERO and each Regional Entity consummate the delegation through the execution of a delegation agreement, which must be approved by the applicable government authority (e.g., FERC in the United States). By entering into such an agreement, the Regional Entity becomes subject to the jurisdiction of the applicable government authority(ies), the rules of procedure of the ERO, and any reliability standards applicable to the Regional Entities.

The scope of the delegation of authority to each Regional Entity encompasses three principal statutory functions: (i) development of regional reliability standards, (ii) monitoring and enforcement of mandatory reliability standards, and (iii) reliability assessment. NERC has identified several additional functions that are necessarily implied in the role of an ERO, including training and education, event analysis, performance analysis, and critical infrastructure protection. The Regional Entities perform the three principal delegated functions and most have activities in the additional functions, in support of NERC’s defined programs.

## Description of Existing Regional Entities

As shown in Figure 1, the existing eight Regional Entities provide full geographic coverage for the jurisdictional scope of NERC as the international ERO.

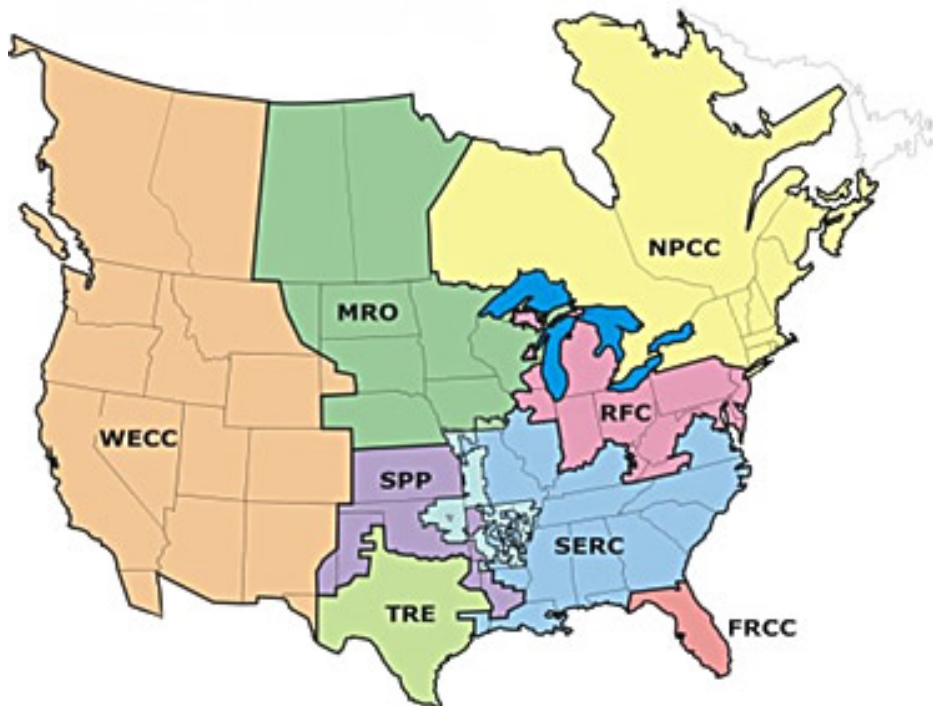


Figure 1 – Map of Regional Entities within NERC

Each Regional Entity previously existed as a voluntary, member-based regional reliability council or organization. The origins of the regional councils date back at least several decades, some as early as the early 1940's and most the late 1960's, when NERC was formed in response to the 1965 Northeast Blackout. The value of preserving aspects of the regional councils while adapting to the new regime of mandatory reliability standards and compliance enforcement cannot be understated, as will be described later in this report.

Despite the long history of some of the regional organizations, there has been a clear recognition that the Regional Entities carry substantially different responsibilities and authorities under the new reliability regime of delegated, government-approved authorities to monitor and enforce compliance with mandatory standards for the purpose of protecting the public interest in a reliable bulk power system. As briefly described below, each Regional Entity has in this initial three-year period of review taken definitive actions to successfully transform itself to meet these new obligations, including changes to governance, independence, procedures, and staffing:

- **Florida Reliability Coordinating Council (“FRCC”)** was formed in 1996. Its sole purpose is to ensure and enhance the reliability and adequacy of the bulk power system in Florida. Since becoming a Regional Entity, the FRCC has made significant changes in its governance and organizational structure. The FRCC amended its Bylaws to create two membership divisions – Regional Entity Division (statutory functions) and Member Services Division (non-statutory functions), added a new General Sector to its membership sectors, added new employees strictly dedicated to the compliance and standards functions, and made changes in its organizational reporting structure. All staff are independent of registered entities, and the organization is governed by a balanced stakeholder board. The FRCC has also implemented internal controls in its accounting procedures to ensure there is no cross subsidization of funds between statutory and non-statutory activities.
- **Midwest Reliability Organization (“MRO”)** was formed from the former Mid-Continent Area Power Pool (“MAPP”) regional council and a portion of Mid-America Interpool Network (“MAIN”) as a new corporation for the purpose of becoming a Regional Entity under the Energy Policy Act of 2005 and the Bilateral Principles. The region spans eight states and two Canadian provinces. MRO is comprised of municipal utilities, cooperatives, investor-owned utilities, a federal power marketing agency, Canadian Crown Corporations, large and small end-users, and independent power producers. MRO is independent of all bulk power system owners, operators, and users, and has no shared employees with any third party. MRO performs only responsibilities delegated from the ERO and similar functions through arrangements with Saskatchewan and Manitoba. MRO has a balanced stakeholder board whereby no two sectors can control a vote and membership is at no cost. The Board has adopted procedures to ensure that they carry out their responsibilities in a non-discriminatory manner, free of conflicts.
- **Northeast Power Coordinating Council (“NPCC”)** was established as the voluntary, international regional reliability organization for Northeastern North

America in January 1966. NPCC began restructuring efforts in 2006 to establish a not-for-profit corporate structure governed by a balanced stakeholder board, using an eight-sector voting model, to meet expected requirements of the Energy Policy Act of 2005. An independent consultant Chairman presides over board activities. By late 2007, with FERC rulings that allowed for divisional separation within regional entities, NPCC had evolved to include both regional entity and criteria services divisions. Because NPCC is an international Regional Entity with significant cross-border interdependencies affecting approximately 70% of the Canadian net energy for load, NPCC has developed memoranda of understanding or provincial government and/or regulatory agency agreements to provide clear delineation of the responsibilities for standards setting, compliance monitoring and enforcement, and reliability assessments within these very different reliability assurance structures.

- **ReliabilityFirst (“RFC”)** was formed from parts of the former East Central Area Reliability Council (“ECAR”), MAIN, and the Mid-Atlantic Area Council (“MAAC”) Regional Reliability Councils on January 1, 2006. The organization was specifically designed to address changes required by the Energy Policy Act of 2005 and to support the ERO in a self-regulating model by which the industry participants establish their own standards and independent Regional Entities determine compliance to those standards. The organization was modified from top to bottom compared to the legacy reliability councils it replaced, and exists only to serve as a FERC-approved Regional Entity performing only those functions delegated to it by NERC as the ERO. For example, all staff are independent of registered entities, the organization is now governed by a hybrid board of directors, which includes both independent and balanced industry sector directors, the corporate headquarters were moved, and the organization is now funded (through the ERO) by all load-serving entities in the footprint as opposed to members (membership is free).
- **SERC Reliability Corporation (“SERC”)** was incorporated in April 2005, replacing the regional reliability council previously in existence since 1969. The new organization was redesigned to meet Section 215 of the Federal Power Act and FERC criteria for delegating statutory authorities and responsibilities. SERC’s scope includes only statutory functions delegated by NERC. The organization does not perform any registered entity functions and has no business affiliations with any registered entities. SERC adopted new bylaws, approved by FERC in April 2007, that provide for a balanced stakeholder board with seven sectors. In June 2007, SERC relocated its headquarters to an unaffiliated office space in Charlotte, North Carolina. SERC has increased staffing from 13 payroll employees in January 2007 to 44 today and all staff are independent of registered entities. The organization is funded through the ERO. Membership is free and open to all jurisdictional owners, operators, and users in the region, and end-use customers.
- **Southwest Power Pool Regional Entity (“SPP or SPP RE”)** has made fundamental governance and organizational changes necessary to carry out its delegated responsibilities. In response to the Energy Policy Act of 2005, SPP, Inc., created a new department to perform all compliance activities over SPP registered entities. SPP RE began engaging NERC to lead SPP, Inc. audits in 2007. In April 2007, FERC approved changes to the SPP, Inc. Bylaws creating three independent

trustees to manage all SPP RE delegated activities. These trustees, initially elected in June 2007, are required to be independent of SPP, Inc. members and customers, and registered entities in the region. In March 2009, SPP RE hired a General Manager, reporting directly to the three independent trustees, to oversee the execution of the Regional Entity strategic direction and direct the day-to-day operations, including all compliance and enforcement activities. The General Manager oversees only delegated statutory functions. All reporting relationships between SPP RE employees and SPP, Inc. employees have been terminated.

- **Texas Regional Entity (“Texas RE or TRE”)** was formed in late 2006, in response to the Energy Policy Act of 2005, as a functionally separate division of Electric Reliability Council of Texas, Inc. (“ERCOT ISO”), for the purpose of enhancing and ensuring reliability of the bulk power system in the region. TRE monitors and enforces compliance with NERC reliability standards, while also monitoring and reporting to the Public Utility Commission of Texas (“PUCT”) on compliance with the reliability-based ERCOT Protocols and Operating Guides. TRE made significant changes in its governance and organizational structure to separate all operations from ERCOT ISO to independently carry out its statutory functions. In 2007, the ERCOT Bylaws were revised to create the functionally separate TRE reporting directly to a hybrid board of directors. TRE has grown from a staff of nine employees in January 2007 to a current staff of thirty. All TRE employees are required to be independent of any registered entity or ERCOT market participant. Texas RE has implemented policies, procedures, and internal controls to ensure its independence from owners, operators, and users of the bulk power system.
- **Western Electricity Coordinating Council (“WECC”)** is the successor to the Western Systems Coordinating Council (WSCC), which was formed in 1967. WECC was formed in April 2002 from the merger of the WSCC, the Southwest Regional Transmission Association, and the Western Regional Transmission Association. WECC’s geographic area is the Western Interconnection – an area encompassing all or part of 14 U.S. states, two Canadian provinces, and a portion of Baja California Norte, Mexico. WECC has 253 members divided into seven membership classes and is governed by an independent and balanced stakeholder board consisting of 32 directors. On February 7, 2006, in anticipation of Regional Entity authority, WECC filed revised Bylaws with the Federal Energy Regulatory Commission, to allocate representation on the WECC Board of Directors for Canadian and Mexican members based on net energy for load. WECC has substantially increased staffing to accommodate compliance and enforcement activities, and all compliance employees are independent of users, owners, and operators of the bulk power system. WECC maintains organizational separation between compliance and other statutory activities. In 1997, WECC implemented a regional Reliability Coordination Plan and funded three Reliability Coordination Offices (RCOs) that contractually provided the ability for WECC to issue reliability directives to operating entities. In January 2009, WECC consolidated the RCOs from three to two, making the remaining two WECC-staffed RCOs more effective and efficient.

# Framework of Self-Regulation and Delegation

## Effectiveness of Self-Regulation

In the Energy Policy Act of 2005<sup>11</sup>, the United States Congress enacted sweeping changes to how regulatory oversight is provided to meet the public's interest in ensuring the reliability of the Nation's bulk power system. Among the most significant changes was to establish FERC as the United States government agency with the authority to approve mandatory reliability standards and to enforce compliance with those standards by owners, operators, and users of the bulk power system, subject to penalties of up to one million dollars per day, per violation.

With wisdom and foresight, Congress chose a self-regulatory model that allows FERC to certify an industry-based ERO and to delegate to the ERO the responsibility and authority to propose reliability standards for FERC approval, to enforce compliance with those standards, and to assess reliability performance. In Order No. 672,<sup>12</sup> FERC established its criteria for certifying the ERO and in July 2006 conditionally certified NERC as the ERO.<sup>13</sup>

Congress further allowed for the delegation of certain responsibilities and authorities from the ERO to Regional Entities. FERC codified the essential criteria for delegation to the Regional Entities in Part 39 of its regulations<sup>14</sup> and in April 2007 conditionally approved delegation agreements between NERC and the existing eight Regional Entities.<sup>15</sup>

Congress chose a model that combines strong federal authority with industry self-regulation in lieu of other possible regulatory approaches and the first three years of experience have demonstrated this approach to be an effective fit for the unique characteristics of the North American bulk power system. The electric power system is unique in that it is physically interconnected across North America and every owner, operator, and user has a vested interest in the reliability of every other owner, operator, and user – the system is only as strong as the weakest link.

An interconnected, cross-border bulk power system requires an *international* ERO to manage reliability. Providing for an international, industry-based ERO, rather than a government-only form of regulation, enables a single organization to develop a common set of North American bulk power system reliability standards and to enforce compliance with those standards uniformly across international and provincial boundaries. To complete this framework, in the time since its certification as the ERO, NERC has worked successfully with Canadian federal and provincial governments to

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<sup>11</sup> Energy Policy Act, Pub. L. No. 109-58, § 1289, 119 Stat. 594 (2005).

<sup>12</sup> See Footnote 1.

<sup>13</sup> *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062, *order on reh'g and compliance*, 117 FERC ¶ 61,126 (2006), *order on compliance*, 118 FERC ¶ 61,030, *order on clarification and reh'g*, 119 FERC ¶ 61,046 (2007).

<sup>14</sup> 18 C.F.R. § 39.1, *et seq.*, (2008).

<sup>15</sup> See *North American Electric Reliability Council, et al.*, 119 FERC ¶ 61,060 (2007).

establish the cross-jurisdictional framework necessary to enforce standards across all of North America.

In addition to its interconnectedness, the bulk power system in North America is one of the most complex engineering feats in the history of humankind. Knowledge of how that system works is principally vested with the engineers and operators who plan and operate the system on a daily basis. In adopting the self-regulatory model, Congress recognized that the unique expertise available only to experienced practitioners was necessary to ensure that enforceable requirements for planning and operation of the bulk power system respect the laws of physics and consider the practical risks, technical challenges, and benefits of operating interconnected electric systems. The self-regulatory model complements FERC's strong regulatory authority with the industry expertise necessary to develop effective reliability standards and perform other reliability improvement functions envisioned by Congress. Moreover, the expert volunteers are typically provided at no cost to the ERO, allowing the ERO and the Regional Entities to be more cost-effective.

Finally, the self-regulatory model has demonstrated in the first three years that it serves to actively engage bulk power system owners, operators, and users with vested interests in reliability through active development of the reliability organizational structures and rules, and constructively improving reliability, rather than assuming a passive approach and waiting to be regulated. In the reliability context, the public interest is best served by an industry that is willfully and actively engaged in improving and ensuring reliability rather than one that is simply expected to follow minimum requirements that have been imposed upon it. It is this active industry engagement that presents the best opportunity for sustainable reliability excellence over the long-term.

For the reasons outlined above, the Regional Entities strongly endorse the self-regulatory model by which the industry participants develop their own standards and independent ERO and Regional Entity staffs determine compliance to those standards, as designed by Congress. The Regional Entities believe the model is working effectively today, because it provides the necessary controls and checkpoints offered by strong regulatory government authority (FERC in the U.S. and the provinces in Canada) overseeing an international, North American reliability organization assisted by eight Regional Entities. This approach of strong central controls through rules of procedure, delegation agreements, and a uniform Compliance Monitoring and Enforcement Program, and auditing, as well as final approvals at NERC before filing of reliability standards and compliance actions, is a sustainable long-term model for the ERO.

The self-regulatory model has proven to be effective as designed, notwithstanding the many opportunities to improve performance that are outlined in this report and the NERC self-assessment. The model works because it combines the best of legacy reliability infrastructures, expertise of the industry, and balanced stakeholder perspectives, with strong, effective regulatory controls and audits of results.



## Effectiveness of Regional Entity Delegation

Congress allowed self-regulatory responsibilities and authorities to be further delegated by the ERO to the Regional Entities, in recognition of the long-standing reliability structures that had been in place for many decades. The industry had long recognized the value of increasingly interconnected operations, formation of power pools and reserve sharing groups, coordination of planning and system protection, and establishment of inter-area operating agreements. In the self-regulatory model described above, the Regional Entities are not simply additional contracted staff to augment the ERO. The Regional Entities are, along with NERC, a key part of the fabric of how the industry has collaborated over many decades to provide a reliable bulk power system. What was previously missing was mandatory and enforceable reliability standards and strong regulatory oversight authority. However, the most effective path forward, at the time of the legislation and still today, is to build from the substantial reliability structures that have existed for decades.

This report, coupled with the individual Regional Entity statements of activities and achievements, evaluates the overall effectiveness of the Regional Entities in executing their delegated responsibilities and authorities. Although delegation can be said to have worked as intended in the first three years of the ERO, there are opportunities for improvement. The existing delegation agreements were blueprints for getting started, but experience has highlighted a number of areas for improvement.

Before reviewing specific improvements to the delegation process, however, it should be acknowledged that perfecting delegation was not at the forefront of priorities during the first three years and should not have been expected. It was instead a priority to transform NERC and the Regional Entities into organizations with the governance, resources, rules, procedures, and tools necessary to perform the delegated statutory functions – and that was accomplished. Another priority was processing the thousands of compliance violations reported leading up to and after the standards became mandatory on June 18, 2007 and reviewing and verifying completion of plans to mitigate those violations – and significant progress has been made on that front. A third priority has been establishing the appropriate due processes for registered entities, such as required notices, rules regarding settlements, hearing procedures and the like – and that has been accomplished.

Delegation as it relates to the ERO is a conscious choice between centralizing or decentralizing certain ERO functions. A careful evaluation of the benefits as well as the drawbacks and risks of delegation provide insight into which functions should be delegated and how delegation should be managed. The industry, as well as Congress, FERC, and Canadian authorities saw significant benefits to delegation, some of which have been previously described, and allowed delegation of certain functions to the Regional Entities in the statutes and regulations. The benefits of delegating, or performing certain ERO functions in a decentralized manner, may be further described as follows:

- A primary advantage of a decentralized business model for certain statutory functions is that it leverages local knowledge, resources, and understanding of the

bulk power system and its owners, operators, and users. This is particularly true in the electricity industry, where systems have been developed for more than 100 years in a decentralized manner. Electric systems have been designed differently and operate differently on a system by system basis. The associated specific expertise and knowledge required to effectively evaluate reliable operations lies locally within each region.

- Decentralization has succeeded in leveraging existing reliability structures and preserved historical bases for reliability within the Regional Entities. The ERO would not have been able to get this far today without the effective implementation of the Regional Entities. As a result, NERC has been able to timely implement the transition from voluntary to mandatory reliability standards.
- Each Regional Entity, within clear boundaries established by delegation, has an opportunity to create innovative solutions and continuously improve performance and efficiency. These solutions can and should be shared among Regional Entities and with NERC.
- Each Regional Entity, once again within the boundaries of delegation criteria, can adapt its operations according to the bulk power system physical attributes and priorities, the planning and operating practices in the region, and the needs of diverse stakeholders and ownership models that exist across North America.
- Regional Entities with cross-border relationships can effectively work across international boundaries to ensure consistent implementation of reliability standards, compliance monitoring and enforcement, and reliability data gathering and sharing. With substantial differences even from one province to the next, the local knowledge and relationships are invaluable in the day-to-day execution of delegated functions.
- Reliability stakeholders have historically been active in greater numbers in the regions than in NERC. The decentralized model effectively extends NERC's reach to involve thousands of stakeholders that would not otherwise be actively engaged.
- Effective delegation of statutory responsibilities and authorities helps to bridge the distance (physical and literal) between national policy and decision-making and the day-to-day implementation at the ground level.
- Although efficiency can also be a disincentive for decentralization, with proper process controls and definition of desired outcomes, decentralized operations can actually be more efficient by shortening lines of communications with registered entities and keeping the day-to-day tasks close to where the problems and solutions are.

There are also potential disadvantages and risks associated with delegation, some of which have been evident in the first three years of operation of the ERO. These may include:

- Divergent visions and directions that may arise through lack of clarity and specificity in the delegation process, or simply through differences of opinion regarding the most effective way to solve a problem.
- Inconsistencies in processes, interpretations of standards, definitions of terms, etc.

- Inefficiencies resulting from duplication of efforts, both between the ERO and Regional Entities and among Regional Entities.
- Inefficiencies resulting from a “not invented here” mentality, in which regions (and sometimes NERC) believe they need to have unique tools or procedures to perform their work.
- Confusion over roles between the ERO and the Regional Entities, including difficulty distinguishing between oversight roles and execution roles. Taken to extremes, lack of clarity in roles could lead to “turf battles.”
- Incomplete communications and missing information that would help each party perform better.
- Divergent or disconnected information management systems and tools.

To maximize the benefits and minimize the risks of delegation, one must understand the factors that can make delegation from the ERO to the Regional Entities successful:

- A strong conviction and singularity of purpose at the executive and board levels of all organizations involved.
- Clear division of responsibilities, both related to the division of performance of the statutory functions and the oversight of those functions.
- Strong, clear standardized procedures, active controls, clearly articulated performance metrics, and checks or audits of performance.
- Clear, frequent communications and transparency among the organizations.
- A cooperative spirit that promotes mutual success and recognizes that failure is indivisible – any failure is collectively shared by the ERO and all Regional Entities.
- Mechanisms to resolve conflicts.

### **Opportunities for Improvement in Delegation Process**

It is clear that the current implementation of delegation presents numerous opportunities for improvement. The three-year assessment provides an excellent opportunity to identify necessary improvements and to address the tensions that naturally exist in the startup of the ERO and the Regional Entities. As in almost any organizational environment some tension is normal and healthy – a lack of any tension would probably be a sign an organization is not adapting, improving and facing up to challenges. NERC and the Regional Entities have worked hard together to address issues of delegation and the renewal of the delegation agreements in May 2010 provide an opportunity to capture some of these improvements in the delegation agreements.

In order to successfully implement a decentralized model over the long term and truly leverage the existing infrastructure, resources and knowledge in the Regional Entities, NERC should establish and clearly communicate systems, procedures and processes, performance metrics and controls, and training. These should be developed through effective policy study and discourse with Regional Entities.

Identical outcomes in compliance and enforcement decisions should not be expected because of the limitless variation in facts and circumstances combined with the discretionary judgment necessary in such decisions. Effective controls, such as establishing written procedures for the conduct of compliance audits, developing an integrated information management system, and requiring standardized financial reporting accounts, are just a few examples of essential elements for successful implementation in a decentralized model and are fundamental to exercising effective oversight.

NERC should emphasize comprehensive training for the Regional Entities to establish a common view towards compliance and enforcement. The comprehensive training should be developed on a coordinated basis using the knowledge gained by the Regional Entities. By establishing a comprehensive training program, NERC would provide an added level of control in the implementation.

Finally, the Regional Entities need to refocus their efforts on the day-to-day responsibilities of administering a compliance program. Compliance monitoring and enforcement requires the specialized knowledge and training possessed by the Regional Entities. In the event of a large-scale investigation across regions, NERC should be in the lead. Even in this circumstance, however, the process would benefit from including Regional Entity staff to provide localized insight.

### **Regional Entity Governance**

The Regional Entities believe Regional Entity governance is working as allowed and intended by Congress and the Commission. As stated previously, the ERO model was carefully designed and already provides sufficient checks and balances by requiring that all compliance actions and penalties, including mitigation plans and remedial action directives, must be approved by NERC before filing with FERC in the U.S. The Regional Entities fully understand the need to avoid any actual or perceived conflicts of interest, but believe the current structures and procedures provide those safeguards without requiring modifications to the existing governance structures of the Regional Entities.

Each Regional Entity, including those with balanced stakeholder boards, has in place effective controls to ensure that independent staff performs the compliance monitoring and discovery processes, evaluates potential violations and makes initial determinations, evaluates the seriousness of the violation and its impacts, and determines appropriate penalties and remedial actions. Regional Entity staffs also evaluate mitigation plans and perform independent reviews of the completion of the mitigation.

The Regional Entity boards, whether they are stakeholder or not, are not involved in the operational decisions surrounding the compliance program. In some instances, they provide oversight regarding internal processes of the region and, for some Regional Entities, the board or a committee or subset of the board may be involved in the final review and approval of compliance actions before submittal to NERC. In all cases,

however, development of the specific facts, conduct of audits, analysis of evidence, basis for determining violations, negotiation of settlements, and determination of penalties are conducted totally by independent staff without involvement of board members. The final review and approval by some of the Regional Entity board level panels is specifically allowed by FERC and the ERO rules of procedure<sup>16</sup> and is a necessary step to making it clear that submittals are from the corporation, not individuals on staff, much the same as the NERC board committee provides final approval of NERC actions filed with FERC.

Furthermore, experience to date within the regions indicates that final review of compliance outcomes has improved results. Stakeholders have a vested interest in the reliability of the bulk power system and realize that the weakest link in reliability presents a risk to all. Board level review often results in approval of staff decisions, but in the cases where actions are remanded, the purpose of the remand is typically to gather additional information and substantiation, or to ensure consistency of penalties in different cases. The Regional Entities unequivocally agree that the existing Regional Entity governance models have worked in practice to act in the interest of the public with regard to bulk power system reliability. When potential conflicts of interest do arise, each Regional Entity has procedures and controls in place to ensure recusal of any conflicted parties.

Finally, stakeholder representation on Regional Entity boards is required by FERC to be balanced. The possibility that a particular class of entities might engage in self-serving activities is foreclosed by the balance of representation on the boards from all stakeholder sectors, including end-use customers. The fact that all actions must be reviewed and approved by the independent directors and staff at NERC and FERC in the U.S., eliminates any residual risk of impaired governance reaching improper conclusions regarding compliance actions.

### **Regional Entity Non-Statutory Functions**

Performance of non-statutory functions by the Regional Entities is permissible under the statutes and regulations.<sup>17</sup> Four of the Regional Entities have chosen to perform registered functions or have affiliations with Registered Entities for various reasons. In some cases, these were legacy activities performed by a precursor regional reliability organization. In some cases, as NERC has found with E-Tagging, the Interconnection Distribution Calculator (“IDC”), and the synchro-phasor project, there simply isn’t a better organization available to perform an important task in support of reliability.

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<sup>16</sup> See NERC Rules of Procedure of *available at*:

[http://www.nerc.com/files/NERC\\_Rules\\_of\\_Procedure\\_EFFECTIVE\\_20081219.pdf](http://www.nerc.com/files/NERC_Rules_of_Procedure_EFFECTIVE_20081219.pdf)

<sup>17</sup> See 18 C.F.R. § 39.4(b); *see also* Order No. 672 at P 656 (“While the ERO may not delegate other statutory functions to a Regional Entity, the Commission will not prohibit a Regional Entity from performing other reliability-related functions in service to its region. As commenters indicate, regional reliability councils currently perform a number of functions beyond the proposal and enforcement of Reliability Standards. A Regional Entity may conduct such activities, provided that they do not conflict or interfere with the performance of a delegated function, which we view as the primary mission of a Regional Entity.”)

MRO, NPCC, RFC, SERC, SPP, and TRE believe they currently manage their Compliance Monitoring and Enforcement Programs completely independent from the owners, operators, and users of the region. Each of these regions except SPP and TRE has no affiliated registered entity functions, and plans to continue operating in this manner independent from any registered entity functions. SPP RE meets this criterion because it has independent governance over its delegated functions and only delegated functions report to the Regional Entity executive. TRE meets the criterion because it is separate from the owners, operators, and users through functional separation and independence from the ERCOT ISO operations.

The remaining two Regional Entities -- FRCC and WECC -- believe that complete divestiture of non-statutory functions would be detrimental to reliability, as all of their non-statutory functions are performed in the pursuit of improving reliability. These Regional Entities note that there is no conflict if all elements of a Regional Entity's scope have a common goal of reliability improvement. In previous orders, FERC has confirmed that Regional Entities may perform non-statutory functions, as long as there are clear procedures in place to avoid conflicts,<sup>18</sup> and NERC and FERC conduct audits to provide that assurance.

All of the Regional Entities agree that conflicts of interest with statutory functions should not exist and that the issue of whether a potential conflict of interest exists should be resolved on a case-by-case basis with the affected Regional Entity. The Regional Entities furthermore agree that a change in policy is unnecessary to address the issue.

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<sup>18</sup> See Order No. 672 at P 656; *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062 at P 579 (2006).

## Regional Reliability Standards

In the section that follows, the Regional Entities provide a brief overview of the regional reliability standards process and scope, and review what has been achieved to date.

### Regional Reliability Standards Processes

The Regional Entities agree with NERC's assessment and the comments of registered entities that the existing reliability standards development process at NERC is working and is effective for the development of bulk power system reliability standards.

Although the open and inclusive nature of the standards development process may extend the time to develop a standard, it is undoubtedly necessary for due process – the deliberative aspects of the standards development process ensure standards that are fair and reasonable to the owners, operators, and users who must often invest substantially to achieve and maintain compliance.

Each Regional Entity has submitted a regional reliability standards development procedure that meets NERC's essential criteria, as defined in the NERC rules of procedure.<sup>19</sup> Each regional reliability standards development procedure has been approved by NERC and FERC. Therefore, each of the Regional Entities has fulfilled the obligation to provide an open, fair, balanced, and inclusive process for the development of regional reliability standards.

It should be noted that development of regional reliability standards is not necessarily a goal of the ERO. First and foremost, the ERO should promote consistent North American reliability standards. Regional reliability standards address unique requirements in a particular interconnection or geographic region of the bulk power system, typically driven by physical differences in the electric system. Therefore, there should not be an expectation there will be a large number of regional reliability standards over time and the relatively small number of regional reliability standards approved in the initial ERO review period should not in itself be a concern.

Nevertheless, there have been a small number of regional reliability standards submitted to NERC for approval. The Regional Entities believe that the procedures approved by the Commission have been followed in developing these standards, but recognize that there are areas for improvement in the process, in particular with respect to communications with NERC staff. Specific descriptions of recommendations for improvement are provided in the WECC, RFC, and MRO regional self-assessments.

The Regional Entities recognize the value of the Regional Reliability Standards Working Group sponsored by NERC and recommend that this group continue its activities of coordinating standards development across all regions.

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<sup>19</sup> See Rules of Procedure of the North American Electric Reliability Corp., Section 300 – Reliability Standards Development, *available at*: <http://www.nerc.com>.

## **Regional Fill-in-the-Blank Standards and Regional Criteria**

When the Commission approved 83 reliability standards in Order No. 693, it withheld a decision on certain standards that referred to regional requirements that were not specifically noted within the standards.<sup>20</sup> These were referred to as “fill-in-the-blank”, meaning the entity had to refer to a regional document for the answer of what level of performance was required. Such requirements cannot be made enforceable until approved by the Commission in the United States. The Regional Entities are concerned because the regional “fill-in-the-blank” reliability standards have not been completed and this creates reliability risks. A number of stakeholders also commented on this issue, noting the lack of clarity and risks faced by registered entities caused by approved FERC standards that refer to regional criteria that are either nonexistent or not approved by FERC.

In this area, the Regional Entities must operate within the bounds of NERC’s three-year work plan schedule and, in some cases, must await the completion of NERC performance criteria before completing the regional standards. This has created a risk of the occurrence of a significant system event for which there are no enforceable criteria. The area of greatest concern is in under-frequency load shedding, but there are several other key areas, including contingency response reserves, disturbance monitoring equipment, and relay mis-operation reporting. In some instances, NERC has questioned whether regional standards are still necessary in these areas, creating further hesitation in the regional development efforts. The Regional Entities request that NERC finalize any North American criteria for each of these areas as soon as possible, which may include a determination that regional standards are not required, and set a schedule for completion of any required regional reliability standards so that this area of risk can be eliminated.

## **Prioritization of Standards Work**

The Regional Entities share a concern that was a common theme among many stakeholders that resources are stretched very thin in the current standards development activity. There are over 300 volunteers working at any point in time on over 30 standards development projects. Additionally, there are hundreds more who review proposed standards and provide comments and vote. The Regional Entities agree that the NERC work plan may be too ambitious in that it attempts to address too many standards development activities at once and that there has been an insufficient prioritization of reliability standards.

Furthermore, the Regional Entities support the view of many stakeholders that there are currently too many standards and requirements, with many of them not based on performance and that accordingly should not be high priorities in ensuring the reliability of the bulk power system. NERC’s approach has been to incorporate every standard translated from the pre-ERO operating policies and planning standards, and then to simply add more requirements and specificity. Some stakeholders note in their

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<sup>20</sup> See Order No. 693 at P 297.



comments that even what they view to be commercial standards, such as those related to ATC and TTC, were swept into the process.

This may actually be harmful to reliability because resources that could be dedicated to ensuring compliance with the discrete set of reliability requirements necessary to avoid wide-area cascading failures are dissipated through an indiscriminating effort to equally promulgate and enforce all requirements, including those that have little impact on reliability or are only ancillary to those requirements that do. Not every standard and requirement is equal in its relationship to reliability, and the Regional Entities believe that work should be prioritized to recognize that. Industry input should be sought to prioritize reliability standards development. NERC should also consider reviewing existing standards for an opportunity to retire less important requirements or convert them to guides or reference materials.

## **Compliance Monitoring and Enforcement**

The compliance monitoring and enforcement program has been a great success in the first three years of the ERO but it is also an area that presents the greatest need for additional work, both within Regional Entities and NERC. The compliance monitoring and enforcement authorities, including imposing penalties up to \$1,000,000 per day per violation, are a significant change from the past, when standards were voluntary. This substantial change at the onset of the ERO has presented a number of growing pains, but at the same time, NERC and the Regional Entities have established a strong foundation from which to build.

A fact that is easily overlooked in an evaluation of the compliance program is that it is unique in both its design and the speed of its growth. The Regional Entities believe that there is no regulatory precedent for moving, in the two years since June 2009, from a period of voluntary compliance to the processing of over 2,764 possible violations of mandatory reliability standards. Indeed, many details in the program had to be addressed and adjustments implemented by NERC and the Regional Entities where necessary, while processing actual alleged violations.

Although the focus of this section is on areas for improvement, it is clear that the first three years of the compliance program must be considered a success. Achievements include establishing the registration criteria and registering 1,839 bulk power system owners, operators, and users, processing over 5,039 pre-June 18, 2007 violations and mitigation plans, establishing procedures and templates for improving consistency in the processing of alleged violations, conducting nearly 600 audits, and training compliance staffs. The industry survey indicates strong support from registered entities that NERC and the Regional Entities have been effective in promoting a culture of compliance and internal self-assessment by registered entities.

The issues described in the remainder of this section offer opportunities to further improve the compliance program in the next five-year assessment period.

### **Compliance Registry**

On the whole, the compliance registry has been one of the more successful aspects of the compliance monitoring and enforcement program. The registration criteria establish benchmarks for including, or excluding, entities within the jurisdiction of mandatory reliability standards. The registration criteria provided an essential first step to implementing the broad language of EAct 2005's applicability. The registry serves to provide clear notice to entities on the list that they must comply with standards applicable to the functions for which they are registered. Although there have been several appeals of registration status, the vast majority of registrations have been accepted by owners, operators, and users.

There are several possible improvements that should be evaluated:

- There is a need to more efficiently address multi-regional entities. There are instances where an entity straddles two or more regions, and thus is subject to

requirements to report compliance information to multiple regions and multiple compliance programs. In fact, there are even national or North American businesses that operate facilities in all eight regions. NERC and the Regional Entities, in concert with stakeholders, should devise approaches to efficiently manage the compliance monitoring of multi-regional entities, such as cross-delegation (assigning one region to monitor compliance). This approach should be designed to focus on consistent results and maximizing efficiency by avoiding duplication of effort.

- At this point, a sufficient number of audits and compliance actions have been processed to legitimately consider whether the scope of the registration criteria has been appropriately defined to protect reliability. This issue is raised by many stakeholders in the survey who believe that the registration criteria have captured many smaller entities near the radial ends of the bulk power system that have no reliability impacts on any one other than themselves and their own customers. Some registered entities note in the survey that both NERC and regional drafting teams are adopting applicability criteria that extend beyond those defined in the registration criteria, which could be problematic if there are standards that apply to entities not registered. NERC and the Regional Entities, in consultation with stakeholders, should review the registration criteria to determine if there should be a different threshold for materiality to the reliability of the bulk power system and to determine if compliance resources could be better prioritized by changes to the registration criteria.
- There have been instances in which entities requested to change their registration (and membership) from one Regional Entity to another. Although there may be legitimate business reasons for such requests, there is a possibility that such entities may be “forum shopping” or seeking different treatment with respect to regional reliability standards or the compliance monitoring and enforcement program. NERC and the Regional Entities should develop a procedure to provide a registered entity a fair process to present justifications for moving from one region to another and for NERC and/or the Regional Entities involved to make an informed decision. Improving consistency among regions should further minimize any inappropriate motives for relocating from one region to another.
- In the industry survey, commenters noted that one of the greatest challenges with compliance registration is that the definitions provided in the Functional Model are conceptual and registered entities have for historical or business reasons often aligned their operations differently. Sometimes certain responsibilities tied to a portion of the reliability standards are delegated to another organization, such as an RTO/ISO or a Generation & Transmission (“G&T”) membership organization. There has been some discussion among stakeholders regarding whether there is a need to revise the Functional Model. However, redefining the terms of various functions may be impractical as it is unlikely to ever resolve the immense diversity of organizational structures in the industry. A long-term solution for possible consideration is to increase the granularity of registration so that it focuses on the requirement level, instead of at the standard level. Registration could also include registration by bulk power system facility, or classes of facilities. Such changes would be dependent on

establishing a relational database and tools for registered entities to self-register online.

- One issue that remains unresolved at the end of the initial three-year assessment period is the registration status of U.S. government agencies, such as the U.S. Army Corps of Engineers, that operate facilities that fall within the registration criteria. Although FERC has directed that these facilities and organizations must be included within the jurisdiction of the mandatory reliability standards,<sup>21</sup> this issue has not been finally resolved due to the potential for appeals of compliance actions on the basis of jurisdiction. The Regional Entities believe that these types of appeals should not be addressed within the regional hearing process because that process is not designed to handle matters of law. The ERO hearing process instead is designed to evaluate facts to determine whether or not there has been a violation of a reliability standard, and if so, what the penalty and corrective actions should be. Regional Entities recommend that FERC should indicate that it will provide the forum for determining legal challenges of jurisdiction between federal agencies and not expect that such matters should be heard by a Regional Entity hearing body or a NERC appellate body.

### **Consistency and Use of Discretion in Application of Penalties**

One expectation of the compliance program is that there should be consistency in the application of penalties for violation of standards across various regions and that the amount of a penalty should reasonably fit the nature and circumstances of the violation. This is a reasonable expectation and NERC and the Regional Entities have worked toward this goal.

The Sanctions Guideline provided in the ERO rules of procedure create a range of penalties, with general bounds, for various risk factors and violation severity levels. However, the ranges within the tables are wide and leave significant discretion, with sometimes order of magnitude differences. NERC has developed a penalty calculator tool as an aid for determining consistent outcomes in light of aggravating or mitigating circumstances surrounding a possible violation, such as the value to assign a registered entity's self-report or degree of cooperation. There has been some tension with stakeholders, confirmed by the survey results, who believe that there is too much uncertainty in the penalty guidelines (allowable ranges are too wide) and that the penalty calculator tool should be made public. However, the tool is simply a guide and most Regional Entities have proceeded to apply a more rigorous analytical assessment of the penalty, rather than relying solely on the tool.

With or without the penalty calculator tool, the fact is that there is a wide range of penalties possible for a violation of a particular requirement in the standards. NERC and the Regional Entities can take several steps to ensure consistency. First, the Notices of Penalty that have been accepted by FERC and made public provide precedent for the Regional Entities to consider in future cases. The advantage of providing a more complete record for each case, as has been required by the

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<sup>21</sup> See, e.g., *Southeastern Power Administration*, 125 FERC ¶ 61,294 (2008).

Commission, is that Regional Entities and registered entities can understand the detailed facts of a case and how those facts were considered in determining an appropriate penalty. Future cases should be guided by these outcomes and over time hundreds and thousands of completed cases will provide a richer base of precedent.

For uncomplicated cases, such as those with relatively low penalty amounts, NERC should establish baseline penalty amounts as a guide for each requirement. These baseline penalty amounts should distinguish between self-reported violations and those not self-reported, and between violations caused by a lack of documentation and those cause by a lack of performance. Establishing baseline penalty expectations for lower level violations without complicating circumstances would substantially simplify the enforcement process and increase certainty in the negotiation of settlements.

It should not be expected, however, that the Regional Entities will produce identical penalty outcomes for all violations of a particular requirement. The facts and circumstances of each case are unique; this is a basic proposition that underlies the rationale for the flexibility and mitigating factors of the Violation Risk Factors that are necessary for due process. For lower priority violations, there may be value to sacrificing efforts to closely match penalty outcomes with the facts of a case, in order to achieve consistent outcomes across the regions. For example, reliability goals are not furthered by spending \$50,000 in resources to resolve whether a penalty for a low priority violation should be \$2,000 or \$4,000. However, for more complex and serious cases, there should be an expectation that penalties will vary from case to case based on the facts of the case and judgment of the Regional Entity staffs. The penalties should be scaled to the seriousness of the violation and should consider all of the aggravating and mitigating factors. But if the Regional Entity produces a reasonable outcome consistent with the broad guidelines established by NERC, there should not be an expectation of identical or imitative results from one case to another.

During the three-year assessment period, NERC has implemented a practice of reviewing every violation submitted by a Regional Entity in detail, with NERC staff presenting its own independent recommendation to the NERC Board Compliance Committee. This approach may be suitable for more serious cases, but is very duplicative and inefficient for most low priority violation cases. NERC should establish procedures to more effectively prioritize cases for review. Based on case history to date, a conservative estimate is that at least a third or more of all cases would be suitable for standardized penalties, as suggested above, greater deference to the region, and for approval at NERC through a consent agenda of the Board Compliance Committee or delegation to NERC staff.

Consistency in penalties could be further enhanced if the NERC Board Compliance Committee would select unique cases with precedential value and issue their decision, either approving or remanding a case, to all Regional Entities (non publicly). This approach would be informative to the regional staffs in enforcement who are developing the cases and penalties and would be helpful in conducting settlements. These “guideposts” would be a very beneficial method for the Board Compliance Committee to

set expectations by providing opinions on a select number of cases with unique value in setting expectations or boundaries of reasonable outcomes. Regardless of whether the board develops a written opinion on a case, all decisions of the board, including remands, should be shared with all of the Regional Entities as a method of further distinguishing minimum expectations.

With respect to the proposal raised in the NERC self-assessment that NERC staff should be consulted earlier in the process to settle on a reasonable penalty, the Regional Entities believe this approach would be unnecessary and of little value, if the more prospective steps outlined above are taken to establish standing guidance to the regions. Furthermore, intervening at the formative stage of determining a violation and a penalty would undermine the delegated authority of the Regional Entity and minimize the credibility of the Regional Entity. Moreover, this approach would compromise the independence of NERC's subsequent review and approval of the compliance action, as well as NERC's ability to entertain appeals on the case – a critical role in which NERC should be unbiased and not have a predetermined notion of the proper outcome.

### **Compliance Monitoring and Enforcement Process Consistency**

Many stakeholders have expressed concerns, both through the survey and over the past two years, with inconsistencies in the implementation of the compliance monitoring and enforcement program across the eight regions. The Regional Entities agree with the stakeholders and NERC that this is an important issue to address.

The underlying reason for inconsistencies is that the rules of procedure, delegation agreements, and existing regulations do not provide guidance in many cases on how to implement the program. For example, there have been many discussions among regions and NERC regarding what information is required to be within the record to substantiate a violation. FERC added further guidance in its July 3, 2008 *Order on Filing Reliability Notices of Penalty*.<sup>22</sup> In addition, there were a number of templates that were developed “just in time” through experience in the early cases.

The Regional Entities believe consistency has improved with experience, but are taking proactive steps to continue improving consistency. The Regional Entity staffs have formed the Regional Entity Management Group to steer the regions toward consistent and effective implementation of delegated responsibilities. The Regional Entities have also formed the Regional Compliance Implementation Group and over a dozen working groups to coordinate various aspects of the compliance process implementation. The Regional Entities believe this interregional coordination activity will be most effective in achieving the goal of consistency if NERC compliance staff actively participates in helping to set priorities, provide guidance, and review results and the regions welcome such participation.

As the ERO, NERC has an opportunity to improve consistency and efficiency by publishing forms, procedures, and other documents that would aid in removing variation

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<sup>22</sup> See *Guidance on Filing Reliability Notices of Penalty*, 124 FERC ¶ 61,015 (2008).

in program implementation among the Regional Entities. However, this guidance should be developed in collaboration with the Regional Entities because practical experience with audits and compliance enforcement will provide valuable feedback on the best set of tools to improve the process. NERC should also develop consistent performance metrics for the regions and audit performance.

NERC can also further enhance consistency through more open and transparent communications with the Regional Entities. For example, NERC staff reviews settlements and alleged violations and presents its final recommendations to the NERC Board Compliance Committee without consulting with regional compliance staff. It would be more efficient if the NERC compliance staff believes the submittal to be deficient to first resolve any issues with the regional staff prior to submittal to the NERC BOTCC. Secondly, NERC legal staff completes a final review of all settlements and confirmed violations prior to filing of a Notice of Penalty (after BOTCC approval). Typically this results in additional changes after the registered entity and the region have executed a settlement agreement, and after the regional board or review panel has approved the action, and the NERC BOTCC has acted. This sequence between the Regional Entities and NERC is inefficient and could be improved.

Over the next few years, there should be an expectation that process consistency will be further enhanced by the introduction of compliance information management systems that provide seamless flow of compliance information from registered entities, through the regions, to NERC.

### **Compliance Audit Consistency**

NERC and the Regional Entities have made significant progress in ensuring consistency of compliance audits, although substantial work remains in this area as well. Most registered entities agree in the survey that NERC and Regional Entity staffs are professional, thorough, and efficient in the conduct of audits.

NERC has published, with the assistance of the regions, a set of Reliability Standards Audit Worksheets to guide the audit process. These guides have been made public and are available to registered entities in preparing for audits. These forms are a helpful step toward ensuring audits are consistent to the extent they provide guidance on what standards will be reviewed, what questions will be addressed, and how evidence of compliance is noted.

A second activity to ensure consistency has been auditor training. NERC has provided face-to-face training sessions as well as an online training module for auditors. To date, however, the training is somewhat limited to training personnel with utility experience and knowledge of the bulk power system in techniques for being an effective auditor. Several regions have initiated supplemental training to reinforce the NERC training. However, NERC needs to develop substantially more training for auditors; an “auditor academy,” consisting of several weeks of comprehensive training, could be an adequate solution. The training should include auditing methods and ethics, the NERC

audit procedures, and, even more importantly, how to arrive at consistent decisions with respect to the amount and quality of evidence sufficient to demonstrate compliance.

NERC and FERC have sometimes provided observers when a Regional Entity is auditing a registered entity. This approach has led to some confusion in responsibilities. In some cases, the NERC and FERC staffs have engaged in the audit process and exceeded the inquiries that would have been asked by the Regional Entity staff; in other cases, NERC and FERC staff are simply observers. A preferred approach would be for NERC to set expectations and provide them through procedures or training, and then to selectively audit results after the fact to determine if outcomes are within guidelines. Even if this approach is adopted, the Regional Entities would continue to welcome NERC and FERC staff presence as audit observers, as well as the occasional sharing of audit staff among Regional Entities, as means of sharing best practices and improving performance.

### **Consistency in Interpretation of Reliability Standards**

NERC and the Regional Entities understand the need to promote consistency in compliance activities to the greatest extent possible. Consistency will add certainty and inspire confidence in registered entities and will result in a higher level of compliance and better performance across the industry. To that end, NERC developed a series of Reliability Standard Audit Worksheets (RSAWs) to provide a common basis and guidance for regional auditor teams. These audit worksheets also greatly benefit the registered entities, as they serve as guides to help identify the types and degrees of evidence typically necessary to demonstrate compliance with reliability standards. Registered entities are encouraged to use the RSAWs in their internal compliance programs and to prepare for compliance audits conducted by the Regional Entities. In addition, registered entities are required by Regional Entities to complete the questions in the RSAWs and submit their responses to the Regional Entity prior to the on-site audit in order to increase the efficiency of the auditing process and reduce time spent on-site.

The RSAWs are not definitive, as noted in their disclaimer, but intended rather as guidance, and registered entities should be able to present alternative evidence of compliance. Some commenters in the industry survey indicate that improvements could be made in the RSAWs by providing clearer expectations of evidence to show compliance and by ensuring RSAWs do not expand the requirements of the standards.

NERC has undertaken an initiative to review and update the current RSAWs and create new RSAWs for standards and requirements that need them. This effort should bring a higher level of consistency and uniformity in compliance audits (as well as addressing other concerns that registered entities have raised concerning the form and organization of the RSAWs). It should also allay concerns raised by stakeholders that the tools that auditors rely upon to audit compliance should not extend beyond the terms of the FERC-approved standards. Continuous improvement based upon feedback and lessons learned in the field is an important goal in the compliance program and the periodic updating of the RSAWs fits within this construct.



Regional Entities believe that their auditors must apply the plain language of the standard when conducting compliance reviews rather than engage in extemporaneous interpretations of intent . When questions arise regarding the application of standards, NERC and its Regional Entities confer to determine how to consistently and correctly apply the plain language of the standard. If agreement cannot be reached, if the standard is too unclear to be practically applied, or if the standard is deficient and must be amended before it can truly promote and safeguard reliability, then the Regional Entities have worked with and will work with NERC staff to employ the ANSI-accredited NERC standards development process to effect the necessary changes or to seek a formal interpretation.

Some registered entities note in their comments that NERC and FERC seem to have much stricter interpretations of requirements and that these interpretations sometimes seem to adopt best practices or even future requirements. Regional Entities recognize that when FERC issued Order No. 693 approving the standards it also applied interpretations that expanded the plain language of the requirements developed through the industry-based open standards process. When expectations associated with reliability standards appear to exceed or at the very least are not clearly identified in the approved standard, NERC should make all registered entities aware of such expectations. This should be done centrally, to promote consistency of the message and issuance, and it should be done publicly so that registered entities can meet these expectations and demonstrate compliance. Keeping increased expectations confidential is inconsistent with maintaining the reliability of the bulk electric system and with reducing the processing of backlogged violations .

### **Compliance Case Load Backlog**

NERC (collectively across all eight regions) currently has 1,784 alleged violations being processed and continues to receive on average nearly 125 new allegations of reliability standard violations per month. Of these, a portion typically are dismissed after review indicates they are not violations, thus leaving approximately 90 new allegations to be processed each month on top of the existing case load. The ensuing process is very formal, with each violation processed through the CMEP in the same manner regardless of its significance to the reliability of the bulk power system.

Many commenters expressed concerns regarding the volume of compliance work facing the Regional Entities and NERC, as well as a desire to see violations and settlements to completion, and therefore made public, in a more expeditious manner. Making these enforcement actions public provides valuable lessons learned to the industry stakeholders and provides guidance to all registered entities that will improve performance and future compliance with the reliability standards. However, the protections established to safeguard the confidentiality of registered entities with alleged violations of reliability standards prohibit publishing the violations until NERC's review is complete and the violation has been filed with FERC, which, to date, typically takes a minimum of five to six months.

An alternative way to provide guidance to registered entities while still protecting confidentiality rights and due process is to publicly share lessons learned, to provide examples of what is necessary to demonstrate sufficient evidence of compliance, and to list common mode failures that have led to past non-compliance. Such a proactive approach to promoting compliance will reduce pressures on processing the backlog of alleged violations by helping registered entities avoid becoming non-compliant in the first place. This approach has the added benefit of achieving higher levels of reliability in a more expeditious manner.

There are additional steps that can be taken to improve the speed and effectiveness of violation processing, as listed below and discussed in subsequent sections of this report.

1. NERC and Regional Entities should adopt a risk-based approach and focus on auditing requirements that are most important to bulk power system reliability, and those experiencing chronic problems.
2. More resources should be added at Regional Entities and NERC to address key bottleneck areas in the processing of alleged violations.
3. Time and effort should be spent to help registered entities better understand compliance requirements to avoid being found non-compliant in the first place.
4. More tools are necessary to expedite the administration of minor infractions.
5. Documentation-related violations may not always need to be addressed via the entire existing compliance process.

The Regional Entities learned many valuable lessons over the past three years as they processed the initial wave of alleged violations. Regions and NERC should make it a priority to share these lessons with each other so that mistakes will not be repeated.

1. Violations should be processed with an approach that prioritizes their review according to their risk to reliability.
2. NERC should strive to avoid performing *de novo* review of violations that are processed by the Regional Entities, or, at a minimum, limit such review to violations of those standards with the highest priority.
3. New or modified compliance and enforcement processes should be tested prior to implementation and feedback loops should be established to continually improve these processes based upon field experience.
4. New or modified compliance and enforcement processes and expectations should be clearly communicated to registered entities prior to implementation.

### **Treatment of Minor Violations**

To date, approximately 50% of all violations have been documentation-related violations, meaning that the entity is performing the task required by the standard (including having a required document), but may not have sufficiently documented evidence to demonstrate compliance to the standard. Processing these violations using the same degree of rigor and same procedures as non-documentation violations can

result in a less efficient program and slower average processing time due to the sheer volume of documentation violations. Each requirement in the standard is given a Violation Risk Factor and many of the documentation requirements are assigned a 'lower' violation risk factor. The Regions concur with NERC's recommendations to address this situation.

As part of the review of the standards, it is fair to question if all documentation requirements in a standard should rise to the level of being an enforceable requirement in the standard. This review should be part of the Standards Work Plan. Identifying and removing from standards any requirements related to documentation that are not necessary will reduce the volume of work and focus the compliance monitoring and enforcement activities on those requirements of the standards where an entity is required to perform a function or a task. The compliance administration elements could then include the data retention requirements and documentation necessary to demonstrate compliance.

The processing of each alleged violation of a reliability standard carries with it full due process for the registered entity in accordance with the process steps included in the CMEP. Processing all alleged violations in this manner is inefficient, particularly for those violations of much less significance to the reliability of the bulk-power system. To address this issue, NERC and the Regional Entities have developed a pro-forma settlement agreement designed to work within the construct of the existing rules of procedure, to be used for a set of standards and requirements where the entity is performing the necessary task, but certain documentation may be missing or incomplete. For a pre-defined set of reliability standard requirements and for a given set of circumstances, a pro-forma settlement agreement can be presented to the registered entity stating the terms and conditions of the settlement, including a pre-defined penalty.

Use of the pro-forma settlement agreement eliminates a good deal of the process paperwork and investigation necessary to bring a violation to the filing stage and there would be an abbreviated record. This process will streamline and shorten settlement negotiations while providing certainty to registered entities that the bilateral agreement reached with the Region will be approved unchanged by NERC. Regional Entities recommend that the use of the pro-forma settlement process be expanded from its current scope.

Some stakeholders have suggested that NERC and the Regional Entities should go further in this area by allowing the issuance of a warning to a registered entity that is not complying with a reliability standard. The Regional Entities recommend that the concept of a warning or "traffic ticket" be further developed as an option for handling and correcting minor administrative infractions.

### **Compliance Information Management Tools**

NERC and the Regional Entities implemented the mandatory Compliance Monitoring and Enforcement Program on June 18, 2007 with a series of data management tools

based on a variety of data platforms and tools. These tools were generally extensions of the tools in existence prior to the standards becoming mandatory and consisted to large degree of simple databases or spreadsheets.

Lacking a common compliance information management platform from NERC, all eight Regional Entities have adopted online, secure tools for electronic management of compliance information received from registered entities. Six of the regions (FRCC, NPCC, RFC, SERC, TRE, and WECC) have converged on a single software platform for the management of compliance information. MRO and SPP have adopted a different program with a similar scope. NERC is in the process of developing its own data platform and tools for management of compliance information, utilizing the same vendor as the six-region consortium. Regional Entities agree with NERC that a single, integrated information systems approach should be implemented.

### **Compliance Process Transparency**

In order to achieve the best possible results – both from an efficiency standpoint and from a reliability standpoint – the compliance process must be as transparent as practical without disclosing the confidential information of a particular compliance case prior to filing of an action with FERC. There are two aspects to the needed transparency: within the ERO and the Regional Entities and between the ERO and its registrants.

#### Within the ERO and the Regional Entities

The initial oversight approach tested by the ERO stresses an independent review of compliance actions conducted by the Regional Entities. While this certainly provides an independent verification of facts and judgment, the efficiency and effectiveness can also be questioned. While such an approach may have made sense initially, it appears to be inefficient in a stable program.

Because NERC basically conducts its own *de novo* review of every violation, it requires duplication of effort in the determination of the record, the level of the financial sanction, and the appropriate mitigating actions. The duplication, as opposed to oversight, causes delay in processing violations, requires extra resources, and can undermine the credibility of the process as registered entities are not certain of outcomes until the process has been run twice.

The Regional Entities suggest the following:

1. NERC staff should provide oversight rather than duplicative review on the vast majority of confirmed violations they receive from their Regional Entities. Many of the violations are routine and need only a review of key outcomes for consistency purposes.
2. NERC staff and the Board Compliance Committee should provide a more in-depth review on an exception basis, based upon the severity of the violation, the uniqueness of it, the impact to reliability, etc.

3. NERC should openly communicate its expectations, the deficiencies found in regional submittals, and other necessary information to all Regional Entities.

### The ERO and its Registrants

Neither the ERO nor its Regional Entities can or should instruct a registered entity on *how* best to be compliant with Reliability Standards. But some transparency in the compliance process will at least manage the expectations of the registered entities. Comments received from stakeholders indicate that to them, the compliance process is a “black box” into which they submit information and receive a response many, many months later. Information can and should be shared to improve the quality and efficiency of the process:

1. How do the Regional Entities and NERC process compliance violations? What is the process and how long does the entire process take?
2. How are penalties determined and applied?
3. What standards are violated with the greatest frequency? Why? What is being done to address this?
4. Are there common modes of failure that can be avoided by simply better educating industry stakeholders regarding the expectations of the standards?

Waiting until public filings of confirmed violations occurs may be too late; the Regional Entities encourage NERC to share non-confidential information with registered entities much earlier in the process to reduce the number of non-compliances encountered which will improve reliability and reduce violation backlogs. The Regional Entities have already collaborated on forensics for Reliability Standard PRC-005 violations and pledge their support to help NERC with other highly violated standards.

### **Hearings and Appeals**

Experience with hearings and appeals is very limited, as only one or two alleged violations have reached the hearing stage; even in those cases, settlements were later reached. No appeals of alleged violations or penalties have been sought to date.

The Regional Entities jointly developed common hearing procedures and shared these with NERC, who also adopted them. Additionally, the Regional Entities have shared their hearing officers among themselves and with NERC, and have conducted practice sessions to test the hearing process and held workshops for their hearing bodies. The procedures are rigorous and legalistic but must be so in order to properly protect the rights of registered entities.

The Regional Entities encourage NERC to test its own hearing and appeal processes prior to implementation. Many lessons can be learned and improvements made after such a session. In certain circumstances, the NERC Compliance and Certification Committee is designated as the hearing body and the Regional Entities ask NERC to consider whether that is an optimal arrangement. An alternative approach is that, in such situations, a disinterested Regional Entity can act as the hearing body because it

has the benefit of independent hearing officers, a well-designed process, and the independence associated with regions governed by NERC's rules of procedure and delegation agreements.

## **Other Statutory Functions**

### **Reliability Assessment**

In accordance with §215(g) of the Federal Power Act, NERC as the ERO is charged with conducting periodic assessments of the reliability and adequacy of the bulk power system in North America. To fulfill this mandate, NERC prepares three reliability assessment reports each year. NERC prepares its reliability assessments, including its independent evaluation, with detailed data, information, and regional self-assessments from the Regional Entities, as well as the active support of an industry-based Reliability Assessment Subcommittee, which is under the direction of the balanced stakeholder NERC Planning Committee with additional review from the NERC Operating Committee.

The NERC Planning Committee approved a Reliability Assessment Improvement Plan to provide clearer definitions and metrics, and through its Reliability Assessment Guidebook Task Force is establishing guidelines to: (i) improve consistency and transparency of assessments; (ii) provide for more granular assessments; (iii) outline the process to assess emerging industry issues; and (iv) establish a core framework for NERC when conducting comprehensive and independent assessments. These actions have significantly enhanced the quality of the reliability assessments.

In its evaluations of the Regional Entities with respect to reliability assessments, NERC provided specific performance information and suggestions for improvement in each of the Regional Entities in the following areas: (i) data checking and validation; (ii) reliability assessment process and procedures; (iii) stakeholder/member involvement; and (iv) overall quality and timeliness. It is the view of the Regional Entities that the collaborative work of finalizing the Reliability Assessment Guidebook will collectively and consistently address any identified areas for improvement. Regional Entities believe that the reliability assessment process that is currently in place is effective and has improved during the initial review period of ERO performance, and this view is supported by stakeholder comments from the industry survey.

### **Event Analysis**

NERC's Event Analysis and Information Exchange program performs analysis of outages and disturbances to determine root causes and lessons learned; to detect emerging trends; and to communicate results, recommendations, and alerts to those in the industry responsible to take actions.

A number of industry concerns were expressed as a part of the survey regarding the lack of timeliness and specificity of information in the dissemination of lessons learned and alerts, as well as the need to prioritize and establish threshold criteria for the analysis of events. The Regional Entities support these comments and recommend that the Event Analysis Coordinating Group directly interface with the NERC Operating Committee to enhance stakeholder, regional and NERC staff collaboration to address these issues.

## **Situational Awareness**

NERC and the Regional Entities are actively participating with FERC to enhance situational awareness. In support of this initiative, Reliability Coordinators have developed procedures to provide near-real time overviews of operating information for their respective footprints to FERC, NERC and the Regional Entities in order to permit the FERC to “measure the health” of the Interconnections and to monitor parameters which may warn of a developing crisis. The geographic displays provide a dynamically updated view of near-real time system conditions. It is essential that the communication protocols be adhered to in order to prevent this effort from being a detriment to system reliability by exposing system operators to distracting inquiries during emergency situations.

## **Critical Infrastructure Protection**

NERC has an essential role in the education of the industry regarding the applicability of the Critical Infrastructure Protection Standards. The Regional Entities, however, recommend that any Technical Feasibility Exception (TFE) requests should in the first instance go to the Regional Entity, and not to NERC as proposed in an amendment to the Rules of Procedure. The Regional Entities further recommend that the TFE process be structured similar to the mitigation plan process, wherein the registered entity works with the Regional Entity which would have knowledge of the local issues in order to establish an acceptable plan. In preparing to conduct audits of the CIP standards, the Regional Entities have been and are hiring CIP expertise and will be in a position to address TFE requests. Part of the draft TFE review process calls for an operational reliability assessment and the Regional Entities are best qualified to make this determination.



**ATTACHMENT 4A**

**FLORIDA RELIABILITY COORDINATING COUNCIL**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



## **Florida Reliability Coordinating Council's Statement of its Activities, Achievements and Effectiveness in Carrying Out its Delegated Responsibilities**

### **INTRODUCTION**

The North American Electric Reliability Corporation (NERC) is required pursuant to the regulations of the Federal Energy Regulatory Commission's (FERC) at 18 C.F.R. §39.3(c), to submit an assessment of its performance three years from the date of NERC's certification as the Electric Reliability Organization ("ERO"), and every five years thereafter. NERC must include in its self-assessment an assessment of the effectiveness of each Regional Entity. In this regard, NERC has requested that each Regional Entity provide a Statement of Activities and Accomplishments for distribution and public comment. The principal focus of the Regional Entity assessments is in the statutory areas of Reliability Standards development and Organization Registration and Compliance Monitoring and Enforcement Programs. Additionally, the assessments include a less extensive discussion of activities in the other four statutory program areas. The initial performance assessment report is due to be filed with the FERC by July 20, 2009.

Public comment on the first draft of NERC and the Regional Entities' Statement of Activities and Achievements was solicited on January 14, 2009 by a questionnaire posted on the NERC web site. The FRCC analyzed the data received and identified areas for improvement based on stakeholder input in the areas of Reliability Standards and Compliance. The FRCC stakeholders have indicated that more training on NERC standards is needed. In this regard, the FRCC will provide one (1) Standards training seminar in 2009 and three (3) Standards training seminars in 2010.

The FRCC stakeholders commented on the need to ensure that the registration process is consistent throughout North America. The FRCC has taken steps to become more consistent by deregistering generators connected at less than 100 kV. The FRCC now believes that it is consistent with the other seven (7) Regional Entities.

The FRCC stakeholders have also identified the need to process Compliance audits and violations in a timelier manner. The FRCC will be improving the processing time of audits and violations, and will provide more education in the Compliance area. The FRCC will be adding three (3) additional staff in the compliance area including a position dedicated to enforcement to help with the growing workload in the settlement of alleged violations. The FRCC believes that the additional staff, the experienced gained in the last 18 months and the improvement in

processes will result in more timely processing of audits and alleged violations. In addition, the Compliance workshops planned for 2009 will focus on education for the additions/improvements to the Compliance Tracking System web portal. The FRCC will also continue to provide educational materials furthering the transparency and understanding of the compliance process and expectations.

This version of FRCC's Statement of Activities and Achievements has been updated with data and information through May 31, 2009.

## **BACKGROUND**

The Florida Reliability Coordinating Council ("FRCC") is a not-for-profit company incorporated in the State of Florida. The FRCC was established in 1996 as the tenth region of the NERC. Florida's unique geography and its highly integrated transmission system coupled with its single interface boundary to the rest of the eastern interconnection required the development of a reliability based philosophy in the FRCC Region. The purpose of the FRCC is to ensure and enhance the reliability and adequacy of the bulk electricity supply in Florida through development of regional reliability standards, compliance assessment and enforcement of NERC and regional reliability standards, coordination of system planning, design and operations and assessment of reliability.

The area of the State of Florida that is within the FRCC Region is peninsular Florida east of the Apalachicola River. Areas west of the Apalachicola are within the SERC Region. The entire FRCC Region is within the Eastern Interconnection and is under the direction of the FRCC Reliability Coordinator.

On May 2, 2007, the FRCC executed an Agreement with NERC for the purpose of delegating to FRCC certain responsibilities and authorities as a Regional Entity as defined by Section 215 of the Federal Power Act; Federal Energy Regulatory Commission regulations and directives, and NERC Rules of Procedure.

Membership in the FRCC Regional Entity Division is open to any entity, without cost, that has a material interest in the reliability of the bulk power system in the FRCC Region. The FRCC is governed by a balanced stakeholder Board of Directors, and accomplishes its activities through standing committees which have a balanced stakeholder governance.

The FRCC provides the statutory functions and services for the FRCC Region through the Regional Entity Division. Non-statutory services for the FRCC Region are provided through the Member Services Division. This divisional structure provides an efficient means of clearly separating statutory and non-statutory activities as well as related funding for each. The revised FRCC Bylaws, creating this divisional structure, were approved by FERC on March 21, 2008. The statutory functions in support of the ERO and in the executed delegation agreement with NERC include:

- Active participation in the development of North American reliability standards for the bulk power system, and as needed development of reliability standards applicable within the FRCC Region.
- Active monitoring and enforcement of approved reliability standards, including the registration of responsible entities, and as needed certification of such entities.
- Assessment of the current and future reliability and adequacy of the bulk power system in the FRCC Region.
- Monitoring reliability performance and promoting improvement of reliability.
- Promoting continual training and education of system operators, and assisting in the certification of the system operators.
- Promoting situational awareness and protection of critical infrastructure.

## **I. Reliability Standards Development**

- A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.*

Prior to 1996, a series of operational and planning guidelines were published and maintained by the region. The FRCC has adopted these operational and planning guidelines (regional criteria) and established the FRCC Handbook. The maintenance of the guidelines is the responsibility of the FRCC Handbook Task Force with the FRCC Operating and FRCC Planning Committees retaining the responsibility for final approval of the documents. Although the FRCC Handbook guidelines are not subject to compliance monitoring, the "reliability based philosophy" within the region has resulted in voluntary adherence to the guidelines. The FRCC is currently pursuing the development of several Regional Reliability Standards. These Regional Reliability Standards are partly in response to the "fill-in-the-blank" nature of the associated NERC Reliability Standards and also based on the need to focus on concerns that are not currently addressed in the NERC Reliability Standards. However, as discussed below, several of the regional standards efforts have been placed on hold pending the outcome of related NERC standard development. Once the continent-wide standards are developed, FRCC will determine if the region needs to have a more stringent regional standard.

- PRC-002-FRCC-01 *FRCC Regional Disturbance Monitoring and Reporting Requirements*: The Standard Request was accepted in October 2006 by the Standards Process Manager and assigned to the FRCC Operating Committee (OC) and the FRCC Planning Committee (PC). The OC and PC accepted the Standard Request and formed the Standard Drafting Team (SDT) to develop a draft FRCC Regional Reliability Standard. There were three (3) postings in 2007 seeking

comments from industry participants. The project is currently 'on-hold' awaiting the completion of NERC Reliability Standard Development Project 2007-11 *Disturbance Monitoring*.

- PRC-003-FRCC-01 *FRCC Regional Analysis of Misoperations of Transmission and Generation Protection Systems*: The Standard Request was accepted in October 2006 by the Standards Process Manager and assigned to the FRCC OC and the FRCC PC. The OC and PC accepted the Standard Request and formed the SDT to develop a draft FRCC Regional Reliability Standard. However, a first draft was not posted due to questions surrounding NERC's work on a continent wide standard. Therefore, the project was placed 'on-hold' awaiting the completion of NERC Reliability Standard Development Project 2010-05 *Protection Systems*.
- PRC-006-FRCC-01 *FRCC Automatic Underfrequency Load Shedding Program*: The Standard Request was accepted in May 2006 by the Standards Process Manager and assigned to the FRCC OC and the FRCC PC. The OC and PC accepted the Standard Request and formed the SDT to develop a draft FRCC Regional Reliability Standard. The development of the standard is progressing in parallel with the NERC Reliability Standard Development Project 2007-01 *Underfrequency Load Shedding*. There have been eight (8) postings for comments from industry participants. The SDT is currently reviewing the comments received during the latest posting period. The expectation is to have the comments addressed and the resulting revisions to the draft standard completed and posted for comment during the third quarter of 2009. Balloting of this regional standard is anticipated before the end of the third quarter of 2009.
- PRC-024-FRCC-01 *FRCC Regional Generator Performance During Frequency and Voltage Excursions*: The Standard Request was accepted in May 2006 by the Standards Process Manager and assigned to the FRCC OC and the FRCC PC. The OC and PC accepted the Standard Request and formed the SDT to develop a draft FRCC Regional Reliability Standard. There have been five (5) drafts posted for industry participant comments but due to the close interrelation with the UFLS projects (regional and continent wide), the development of this standard has been placed 'on-hold' awaiting the completion of the FRCC Regional Reliability Standard Project (PRC-006-FRCC-01 *FRCC Automatic Underfrequency Load Shedding Program*) and the NERC Reliability Standard Development Projects 2007-01 *Underfrequency Load Shedding* and 2007-09 *Generator Verification*.
- Two other NERC Reliability Standards that are of the fill-in-the-blank nature are BAL-002-0 and PRC-012-0. FRCC will review the NERC activities in relation to the modification of these standards to determine the appropriate time to begin development (if needed) of supporting regional reliability standards.

FRCC staff has and will continue to actively provide support (i.e. committee chairs, co-chairs and members) to the NERC Standards Committee, associated Sub-Committees, and various standard drafting teams.

Since January of 2007 the FRCC has made the following improvements within the Regional Reliability Standards Department:

- During 2007 and most of 2008, the Reliability Standards Program was staffed by a combination of FRCC personnel. The FRCC had 0.9 FTE's budgeted in 2007 and increased to 1.55 FTE's in 2008. In August 2008 the Manager of Reliability Standards position was filled. This position has the primary responsibility for both FRCC Regional Reliability Standards development, and participating and following NERC Reliability Standards development activities.
- The FRCC Regional Reliability Standards Development Process was approved by FERC in their April 19, 2007 Order regarding the FRCC Delegation Agreement. In that Order FERC directed FRCC to modify its process so that all interested stakeholders, including those that are not FRCC members, may participate and vote on reliability standards. To carry out this directive, the FRCC modified its process by removing the Operating and Planning Committees approval steps and replaced it with approval of a Registered Ballot Body, similar in concept to the NERC process. This modified process was approved by the FRCC Board of Directors in September, 2007 and submitted to FERC as part of the October 30, 2007 Compliance filing, which was approved in a March 21, 2008 FERC Order.
- FRCC has automated certain elements of the FRCC Regional Reliability Standard Development Process. The resulting system, called the Registered Ballot Body System (RBBS), allows users to register as members of the FRCC Registered Ballot Body (RBB). The RBB is comprised of representatives from all market sectors as defined in the FRCC Bylaws, to provide balanced decision-making on FRCC Regional Reliability Standards. Future enhancements to the RBBS will allow RBB members to join ballot pools, and vote on proposed new and revised FRCC Regional Reliability Standards.
- The 'Standards' section on the FRCC website was enhanced to provide access to the FRCC Reliability Standards development procedures and associated documents and to track standards development.

Future plans in the Regional standards program area for continual improvement will include, but not be limited to, the following:

- The RBBS will provide access to the RBB roster, individual Ballot Pool rosters and Ballot Results.
- Enhancements to the 'Standards' section on the FRCC website include establishing the ability to submit comments via the web rather than through email.

- Continued participation on and commitment to the NERC Standards Committee, associated Sub-Committees and the NERC Regional Reliability Standard Working Group with the goal of establishing uniformity and consistency with the NERC continent-wide process and the other Regional programs.
- Closer interaction with FERC and NERC during Regional standards development to ensure all regulatory input is considered.
- FRCC stakeholders have indicated that more training on NERC standards is needed therefore the FRCC Standards Department will provide one (1) training seminar in 2009 and three (3) seminars in 2010.

*B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.*

On October 23, 2007 the NERC Board of Trustees (BOT) approved for filing with FERC the revised FRCC Delegation agreement that included the FRCC Regional Reliability Standards Development Process Manual (dated: September 25, 2007) and subsequently on March 21, 2008 the FERC approved the procedure without condition. This manual establishes the process for the development, revision, withdrawal and approval of FRCC Regional Reliability Standards for the FRCC Region. Proposed FRCC Regional Reliability Standards shall be subject to approval by the NERC, as the ERO, and by the FERC before becoming mandatory and enforceable under Section 215 of the Federal Power Act. FRCC Regional Reliability Standards, when approved by FERC, shall be made part of the body of NERC Reliability Standards and shall be enforced upon all applicable bulk power system owners, operators and users within the FRCC Region, regardless of membership in the Regional Entity.

The FRCC Regional Reliability Standards Development Process is based on providing an open and fair process that ensures all interested and affected parties have an opportunity to participate in the development of FRCC Regional Reliability Standards. Any entity (person, organization, company, government agency, individual, etc.) with a direct and material interest in the reliability of the FRCC Bulk Power System has a right to participate by: (a) expressing a position and its basis, (b) having that position considered, (c) voting on proposed Regional Reliability Standards, and (d) having the right to appeal.

The 'Standards' section on the FRCC website was developed to provide stakeholders with an informative and user-friendly tool which emphasizes the FRCC's commitment to maintaining a standards development process that encompasses *due process, openness* and *balance*. The 'Standards Under Development' portion of the website was designed to provide a visual depiction of the progression through the regional standard development process and integrates direct hyperlinks to the following documents and forms:

- FRCC Regional Reliability Standard Request Form

- Proposed draft versions of the Regional Reliability Standard and the Implementation Plan
- Comment forms and the comments received during the applicable posting periods
- Standard Drafting Team responses to the submitted comments
- Supporting documentation and materials

The FRCC will continue to upgrade and expand the capabilities of the ‘Standards’ section of the FRCC website to facilitate the standard development process while incorporating the recommendations from NERC, other Regional Entities, the industry and various stakeholders.

The FRCC Regional Reliability Standards Development Process ensures a balance of interests by utilizing the ‘weighted sector’ voting process established by the FRCC Bylaws as approved by NERC and FERC, and included in the Delegation Agreement between NERC and the FRCC.

The FRCC, by establishing the Regional Reliability Standards Development Process, has developed the policies and procedures, along with the necessary tools to foster an effective and efficient program to develop regional reliability standards both at the direction of NERC as the ERO and also in response to reliability related needs identified by “other sources”.

*C. State Regional Entity’s assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

The FRCC has established a strong foundation on which to build a comprehensive Regional Reliability Standard Development Process that is responsive to the needs of NERC and FERC, the other Regional Entities and the Registered Entities within the region. The FRCC has initiated the development of four (4) Regional Reliability Standards in response to the ‘fill-in-the-blank’ nature of the associated NERC Reliability Standards and the need to focus on concerns that are not currently addressed in the NERC Reliability Standards. Three (3) of these four (4) Regional Reliability Standards have been delayed awaiting the completion of the related continent-wide standards. However, the FRCC is fully prepared to resume development of these Regional Reliability Standards, if necessary, once the continent-wide projects near completion.

Due to the fact that the FRCC has only administered the early stages of the standard development process on the above mentioned standards, it is difficult to fully assess the effectiveness of the process. However, the FRCC has recently made the following significant enhancements to improve the overall effectiveness of the reliability standards development process:

- Increased staffing within the Regional Reliability Standards Department
- Implementation of the RBBS
- Improved oversight of the SDT activities



- Enhancements to the ‘Standards’ section of the FRCC website

Based on the existing process and the recent improvements as outlined above, the FRCC believes that it is well positioned to initiate, develop and implement Regional Reliability Standards now and into the future.

*D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development.*

The FRCC is continuously reviewing the current standard development process and benchmarking other regional standard development processes in an effort to identify additional areas of potential improvement. The FRCC is committed to establishing and maintaining an effective and efficient regional standards development process through due process, openness and balance.

The FRCC will continue to participate on the NERC Regional Reliability Standards Working Group (RRSWG) which is dedicated to sharing improvement ideas and establishing consistency in the standard development processes across the regions.

The FRCC will consider and evaluate the benefits of forming a regional Standards Committee to assist in oversight of the regional standards development process.

## **II. Organization Registration and Compliance Monitoring and Enforcement Program**

*A. Describe Regional Entity’s activities and accomplishments in OR/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.*

### Staffing

2007 was a year of transition in terms of compliance personnel. The two existing compliance staff employees took positions with another Regional Entity. These vacant positions were filled along with a new position, all in the first quarter. Essentially, all dedicated compliance staff were new this year. The staffing in 2007 consisted of a Manager of Compliance, Compliance Program Administrator and a Compliance Engineer. In addition to these dedicated staff, other FRCC staff helped support compliance activities in 2007 on an as needed basis for a total of 3.2 budgeted FTE’s.

In 2008, compliance staff consisted of a Manager of Compliance, two Compliance Program Administrators and three Compliance Engineers/Auditors. No other FRCC staff participated in any compliance program activities with the exception of the Vice President and Executive Director of Standards and Compliance. For 2009, compliance staff will add two additional Compliance Engineers/Auditors. An assessment for further staffing needs identified the need for three (3) additional staff for compliance and this addition is reflected in the 2010 budget as approved by the FRCC Board of Directors on June 10, 2009.

### Organization Registration

The FRCC began work on registering organizations in 2006. In December 2006, NERC established a schedule for the Regional Entities to follow with a final draft registration to be submitted on March 2, 2007. The FRCC followed the NERC Statement of Compliance Registry Criteria as its basis for including organizations on our registration list. The FRCC did include a number of organizations that owned or operated generators that were connected at 69kV because previous studies indicated they had a material impact to reliability of the FRCC Bulk Electric System (BES). NERC received several appeals of which all were upheld by the NERC Board of Trustees Compliance Committee. Several entities appealed at FERC, two of which were denied at FERC while the others were remanded for further review. Upon additional review, the FRCC removed two entities from the registration list in late 2007. The number of registered entities in FRCC in 2007 was 82.

In 2008, the FRCC performed a more in depth analysis of those generators that were connected at less than 100kV, and determined that due to changes in topography and other system conditions, these generators no longer had a material impact to the reliability of the FRCC BES and requested that NERC remove these entities from the registration list. FRCC now has 68 entities on the NERC Compliance Registry.

FRCC is committed to continue to utilize the NERC Statement of Compliance Registry Criteria and the NERC definition of Bulk Electric System as the basis for inclusion on the Compliance Registry and to ensure consistent registration with other regions. The FRCC will develop and implement an annual review process in 2009 to assist in ensuring the registry is complete and up to date.

### Compliance Workshops

The FRCC has held numerous workshops as a way to engage the Registered Entities within the FRCC and provide information and education about the Compliance Program.

Two workshops were held in the spring of 2007 (4/4 and 4/11) with a total of 135 attendees. The focus of these workshops was basic education about the compliance program. Topics included:

- NERC update
- Entity Registration
- Compliance Program Overview
- The 8 Monitoring Methods
- Remedial Action Directives, Penalties and Appeals
- Presentations from two (2) Registered Entities on what they were doing to build an internal compliance program

A comment form was requested from each participant to obtain feedback and learn what areas they were interested in for future workshops.

In 2008, the FRCC held two (2) workshops in the spring (4/8 and 4/9) with a total of 111 attendees and five (5) workshops in the fall (9/12, 9/19, 9/26, 10/7 and 10/10) with a total of 140 attendees. The spring workshops were very similar to those conducted in 2007 providing basic information about the compliance program. However, the fall workshops were very different and were split into two sessions each day.

The morning session focused on training for the new Web based application that the FRCC has implemented for reporting and tracking. This was geared towards the Registered Entity personnel who will be the Master Account Administrator. The afternoon session was focused on areas where the Registered Entities indicated a need for more information. The topics included:

- Preparing for an audit
- Quality of Evidence
- Problem areas and update on penalty assessment
- Reliability Standards Development

The feedback the FRCC received from the participants of the fall workshops was very positive. They were very pleased to have information to help them understand what is being sought during audits and investigations in terms of quality evidence. The FRCC plans to continue to provide this kind of education to the Registered Entities in future workshops.

The FRCC 2009 Spring Compliance Workshop consisted of five (5) one-day sessions held on 5/1, 5/8, 5/14, 5/15, and 5/18, with approximately 140 total attendees. During each session, there was an update on the Compliance Tracking and Submittal (CTS) portal. NERC Staff gave presentations on CMEP updates and CIP Program perspectives. In addition, representatives from two (2) Registered Entities shared their experience with NERC Reliability Standard PRC-005 and with preparing for a compliance audit. Finally, FRCC Staff spoke on standards development, updates to the Implementation Plan, mitigation plan preparation, and enforcement activities.

Attendees provided very positive feedback on the spring workshop. The presentation on PRC-005 received particularly favorable comments. The discussion during enforcement topics gave valuable insight into the settlement process. Their feedback and suggestions will be used in developing FRCC's fall conference call / WebEx forums. Compliance and process updates will also be communicated during these forums.

#### On-site Compliance Audits

During 2007, the FRCC completed five (5) on-site Compliance Audits. This included audits of Florida Power & Light, Progress Energy Florida, Kissimmee Utilities Authority, Lakeland Electric and the City of New Smyrna Beach.

During 2008, the FRCC completed four (4) on-site Compliance Audits. This included the City of Homestead, JEA, Reedy Creek Improvement District and Tampa Electric Company.

For 2009, the FRCC has sixteen (16) on-site Compliance Audits scheduled. This will be the first year to incorporate audits of Registered Entities that are not also BA's, TOP's and RC's.

During the on-site Compliance Audits, the FRCC audit teams are divided into two sub teams. The standards included in the audit are then assigned to the sub teams based on areas of expertise.

After each audit the Compliance Staff conducts a lessons learned session with the objective of continuing to improve the consistency, thoroughness, and efficiency of the audit process. The audits conducted in 2007 and 2008 utilized industry volunteers as part of the audit team makeup. For 2009, the audit teams are planned to be composed entirely of FRCC Compliance Staff, however, this is being reevaluated as we assess needs for subject matter experts, particularly in the Critical Infrastructure Program area.

#### Spot Checks Reviews

The FRCC has developed and implemented a procedure for conducting Spot Checks of its Registered Entities that are subject to the FRCC Compliance Monitoring and Enforcement Program (CMEP). The FRCC Compliance Staff selects Reliability Standards based on covering all Registered Entity functions and those that may have more impact on the reliability of the FRCC Bulk Power System.

During 2007 the FRCC Compliance Staff selected the following NERC Reliability Standards for the Spot Check Review: PER-003-0 and TPL-002-0. This Spot Check review was done prior to mandatory enforcement of standards.

During 2008 the FRCC Compliance Staff selected the following NERC Reliability Standards for the Spot Check review: FAC-003-1, PRC-005-1, VAR-001-1 and VAR-002-1. These standards were selected by the FRCC for this Spot Check review because of the risk to the BPS associated with these standards and/or to assure that all entities in the FRCC would be monitored to some level unless intentionally excluded as mentioned above. This Spot Check review impacted all registered entities in the FRCC region that did not receive an on-site Compliance Audit in either 2007 or 2008. This Spot Check review included a total of 115 bodies of evidence.

For 2009, the NERC Compliance Implementation Plan provided more specific direction to what Reliability Standards should be monitored via Spot Check reviews. The FRCC will follow the directions provided by NERC and will consider additional needs for Spot Checks as situations arise.

#### Self Certification

Self Certification is performed on an annual basis. The timeframe for self certification is typically in the 4<sup>th</sup> quarter of the year. The request for self certification normally goes out to all Registered Entities in early November with their data due by mid-December. All Registered Entities participated in the annual self certification process for 2007 and 2008.

In addition to the annual self certification, the FRCC conducted the CIP-002 through CIP-009 self certification in July of 2008 and January 2009 as required by the NERC CIP Guidance document on the CIP Implementation Plan. Based on direction provided by FERC, the FRCC will implement additional semi-annual self certifications of CIP standards in 2009.

### Hearings

The FRCC has established its Board of Directors Compliance Committee as the Hearing Body. In addition, the FRCC has entered into agreements with several Hearing Officers should a Hearing be requested. To date, the FRCC has not had any requests for Hearings.

### Enforcement Activities

Summary of the number of violations assessed and processed in 2007, 2008 and 2009 to date.

<b>Violation Timeframe</b>	<b>Number of Possible Violations Reviewed</b>	<b>Number of Violations With Sufficient Basis</b>	<b>Notices of Alleged Violation Filed (#Violations)</b>	<b>Notices of Confirmed Violation Filed. (#Violations)</b>	<b>Number of Violations Complete</b>
2007 Pre-June 18	470	388	N/A	N/A	373
2007 Post-June 18	59	56	53	49	2
2008	98	80*	6	6	0
2009 YTD	40	39*	0	0	0

\*Note: Ninety (90) violations are presently in settlement discussions.

Summary of the number of mitigation plans processed to date.

<b>Mitigation Plan Timeframe</b>	<b>Number of Violations with Mitigation Plans Submitted</b>	<b>Number of Violations with Accepted and Approved Mitigation Plans</b>	<b>Number of Violations with Mitigation Plans Certified as Complete</b>	<b>Number of Violations with Mitigation Plans Verified as Complete</b>
2007 Pre-June 18	388	386	386	357
Post-June 18, 2007 TD	175	162	122	108

*B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its Region.*

The FRCC has authority to enforce Reliability Standards through a FERC approved Delegation Agreement with NERC. The FRCC CMEP, which closely follows the NERC uniform CMEP, is part of the FRCC Delegation Agreement. The FRCC follows the Delegation Agreement and its Exhibits and the NERC Rules of Procedure in enforcing compliance to Reliability Standards.

The FRCC Compliance Staff is committed to the full implementation of the FRCC CMEP and follows the NERC Rules of Procedure and guidance provided by NERC staff and FERC staff. The FRCC compliance department is almost fully staffed (per 2009 budget) and even while operating with vacant positions, was able to carry out its enforcement activities to provide for an adequate level of reliability for the Bulk Power System in the FRCC. In 2009, the FRCC will continue to seek highly qualified individuals to complete our staffing needs and identified the need for three (3) additional staff which is reflected in the FRCC Board of Directors' approved 2010 budget. The FRCC has developed internal procedures that allow the Compliance Staff to implement the program in an independent, efficient and effective manner.

The FRCC Compliance Staff (with the exception of the administrative positions) attended the lead auditor training held by NERC and also the web based training sponsored by NERC. All of the FRCC Compliance Staff have completed the NERC web based compliance training modules. Five (5) of the Compliance Staff attended a training session held by FERC on conducting investigations. In addition, NERC-provided training on the monitoring and enforcement of the CIP standards will be completed by most of the Compliance Staff by the end of the second quarter 2009. The FRCC will continue to seek additional training to improve the effectiveness and skills of its Compliance Staff.

The Regional Entities have formed several groups to share information and best practices as they relate to the implementation of the CMEP. The FRCC Compliance Staff participates in the Regional Entity Compliance Implementation Group (RCIG) and its

associated working groups. The primary purpose of this group is to foster coordination and cooperation and improve consistency among the regions. The FRCC also participates in the Regional Entity Management Group (REMG) whose members are the chief executives of each region and oversee all program areas, including compliance enforcement.

*C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards.*

All FRCC employees are expected to perform their responsibilities with the highest ethical standards. The FRCC Compliance Staff act independently of all other departments within the FRCC. They work with NERC Compliance Staff and the other Regional Entity Compliance Staff to implement the compliance program activities in the most consistent manner possible. They are not allowed to have interests in outside businesses which conflict or appear to conflict with their ability to act and make independent decisions in the best interest of FRCC and the reliability of the bulk power system. The FRCC Personnel Policy Manual outlines these expectations of all employees. In addition, each year all employees are expected to review and sign a Recital and Disclosure document to verify they have reviewed the policy and are meeting the policy requirements. If any conflicts of interest do exist, the FRCC Compliance Staff member will be recused from performing monitoring and enforcement activities with the conflicted entity.

The FRCC Compliance Staff offices are located in offices that are separate and apart from the rest of the FRCC staff. The Compliance Staff do not discuss any confidential compliance matters with employees outside of the compliance organization. They are committed to performing their responsibilities in an independent manner.

NERC staff provides oversight of FRCC compliance activities and provides a level of review above and beyond any internal review. The FRCC Compliance Staff follows the FRCC CMEP (which closely follows the NERC uniform CMEP) and NERC Rules of Procedure, and discloses to all Registered Entities the members of audit and review teams in order to provide opportunity to Registered Entities to review participation for any conflict of interest concerns. The FERC-approved NERC and FRCC CMEPs contain fair and impartial procedures for monitoring and enforcing compliance with reliability standards. In addition, FRCC Compliance Staff members that have worked previously for a Registered Entity within the FRCC Region are not allowed to participate in any compliance enforcement activities related to that Registered Entity for a period of two (2) years.

The FRCC Member Services Division is registered on the NERC Compliance Registry for two reliability functions, the Planning Authority (PA) and Reliability Coordinator (RC). NERC is currently the compliance enforcement authority and is responsible for monitoring and enforcing compliance to all standard requirements that FRCC is responsible for as a PA and RC.

*D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

The effectiveness of the FRCC in enforcing compliance to reliability standards has greatly improved since the beginning of 2007. This has occurred with the addition of competent and experienced staff, development of internal processes and tools, and the Registered Entities' increased knowledge of the Reliability Standards and expectations for verifying compliance.

The FRCC received a great number of self reported violations prior to June 18, 2007. This number of self reports was much more than anticipated and also more than experienced by several of the larger regions. With our staffing challenges in 2007 and into 2008, and the continued work demanded by ongoing compliance activities, a "backlog" of processing violations and associated mitigation plans developed. The FRCC Compliance Staff has diligently worked in 2008 to reduce this backlog; however it is not expected to be eliminated until the end of the second quarter 2009. FRCC has sought out help in the form of additional loaned manpower from NERC and other regions. SERC assisted the FRCC in this reduction effort by providing members of the SERC Compliance Staff during the first quarter of 2009.

The FRCC does not expect a situation like this to occur again in the future for several reasons. The FRCC has increased staff to our full complement for 2008 and is in the process of filling one (1) vacant budgeted position for 2009. While self reports by Registered Entities are still expected and desired, it is highly unlikely that a large number of self reports will come in at the same time as occurred prior to mandatory enforcement.

The FRCC has been working on improving tools and processes and has implemented a web based compliance reporting and tracking system. Five (5) other Regional Entities have implemented this same tool and together have formed a Consortium User Group to collaborate and share resources for the development, modification and maintenance of this tool. NERC is currently in the process of implementing a web based application (from the same vendor) that will be able to interface with the Regional Entity application, thus providing a much more efficient and accurate mechanism for the transfer of data.

FRCC is committed to improving the processing time of audits and violations.

*E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.*

The FRCC believes that the best way to improve its effectiveness in compliance enforcement and organization registration is through the continued collaboration of the Regional Entities and NERC. The Reliability Standards have been mandatory for two (2) years; however, the compliance enforcement process is still relatively new to both the Regional Entities and the Registered Entities. Additional time is needed to improve the Reliability Standards to provide greater clarity and understanding. The FRCC will strive to provide increased opportunities for education to the Registered Entities since



improvements in compliance are evident once more clarity is provided on what is expected of the Registered Entity to demonstrate compliance through quality evidence. The FRCC has purchased a document management system that it plans to utilize in the compliance area for storing and retrieving electronic files in a more efficient manner.

There have been numerous questions surrounding the inclusion of generators in the NERC Compliance Registry. FRCC faced several issues surrounding these questions as described earlier in this assessment. The FRCC believes improvement in reliability could be made as well as the elimination of confusion and inconsistency in registration criteria, if NERC would consider requiring all generators with nameplate ratings greater than 20 MVA, regardless of connection voltages to be included in the NERC Compliance Registry.

Through the implementation of the CMEP, several areas have been uncovered that need review and consideration by the Regional Entities, NERC and FERC. These areas present the possibilities for revision to the NERC Rules of Procedure (ROP) and the CMEP itself. The two primary areas of concern include:

- **Data Retention:** there are words in the CMEP (Section 3.1.4) that state that compliance audit scope will be defined by the data retention terms identified in the reliability standard. In many cases, the data retention terms conflict with the implementation plan language stating that audit scope will include the current and three previous years. As we implemented the CMEP in 2008 and 2009, NERC's expectation for the audit scope was to review evidence back to June 18, 2007, and many of the data retention requirements in the standards do not support this. The Registered Entities and the Compliance Staff are unclear as to what is enforceable in terms of the time period monitored (audit scope) with this conflict. Revisions to the CMEP, ROP, Reliability Standards and or implementation plans are needed to eliminate inconsistency between the expectations that the audit scope covers a time period that can be different than the data retention requirement of the standards.
- **CIP Information:** there have been several Registered Entities that have expressed concern that if they turn over their critical infrastructure documentation to Compliance Staff, that they will violate their own procedures that are developed to comply with several CIP standards. If their internal programs require a certain criteria for granting access to information, they believe that Compliance Staff must follow that criteria or they would be held in violation since they did not follow their own program. Review needs to be made of this potential conflict with some resolution so that Compliance Staff is not subject to many different sets of internal review processes and have access to the information they need to determine compliance. The Registered Entities need to be given some assurance that they will not be held in violation if they provide critical infrastructure documentation to FRCC Compliance Staff for compliance monitoring purposes and by doing so do not follow their own internal processes.

### III. Other Program Areas

#### A. Reliability Readiness Evaluation and Improvement Program

1. *Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.*

The NERC Readiness Program, which was initiated to ensure balancing authorities, transmission operators, and reliability coordinators were ready to perform under emergency conditions, has had evolving goals since its original inception. The program focus has shifted to promoting organizational excellence in performing assigned reliability functions and responsibilities. The current program goals are based on the recognition that Reliability Standards may lag behind the current developments in reliable operations and that historically, NERC standards have presented a threshold, not necessarily a target, for performance to the industry.

The NERC Readiness Program evaluations were designed to ensure that operators of the bulk power system have the tools, processes, and procedures in place to operate reliably and ensure that operating entities recognize and assess their reliability responsibilities and evaluate how their operations support those responsibilities.

To that end, the FRCC has found that the resulting evaluations along with the regional tracking process foster and enable organizational focus on continuous improvement of established operations and continued organizational focus on reliable interconnected operations.

2. *State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

In previous years, the FRCC has supported all facets of the NERC Readiness Program implementation and continued to do so in 2007 and 2008. In 2006 the FRCC developed procedures and a database in support of the program and to track recommendations received by entities within the Region. Since that time, the FRCC has reviewed and tracked actions taken in response to recommendations on a quarterly basis in support of NERC's overarching program tracking initiative. In 2007, the FRCC hosted five (5) Readiness Evaluations including evaluations of four (4) registered BA/TOP entities as well as one (1) registered TOP only evaluation. In 2008, the FRCC hosted six (6) Readiness Evaluations including, evaluations of three (3) registered BA/TOP entities as well as three (3) registered TOP only evaluations. FRCC supported the program by providing at least two (2) FRCC staff members and two (2) Regional volunteer

auditors (peer review) for four (4) days during most of these evaluations as well as the time and resources required to review evaluation reports.

The FRCC continues to perform internal subcommittee reviews of final Reliability Readiness Evaluation report recommendations to assess the appropriateness of entity responses to each recommendation as well as to look for potential opportunities for developing Regional best practices or guidelines. The FRCC staff will continue to track each recommendation received within the Region to its ultimate resolution. This process and database will continue to be used to support the NERC reporting requirements regarding Readiness Evaluation Recommendations including the transition and phase out of the program that has been proposed by NERC.

To date, the FRCC has successfully improved the internal processes supporting the Readiness Programs and resulting evaluations to leverage the most benefit from this NERC program for the reliability of the Region. The FRCC has also been successful (as of December 2008 ) in having all of its BA, TOP and RC Registered Entities evaluated for readiness at least once with many having been evaluated more than once. The FRCC has also been successful in using the program to provide valuable experience to familiarize members of the FRCC Compliance Staff with the overall make-up and operational topology of the Region.

Even though the program is being phased out, FRCC staff will continue to actively track implementation of the resulting recommendations, on a quarterly basis until actions on all recommendations (within the Region) have been completed. Although, the FRCC will continue to provide staff support to coordinate the transition and closeout of the NERC Readiness Evaluation Program in 2009, the phase out of the program will have minimal impact on FRCC staff and will free up some resources to better support the FRCC CMEP.

3. *[Discussion of proposed improvements not needed, since this program is being phased out in the first quarter of 2009.]*

## **B. Training, Education and Operator Certification**

1. *Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.*

The FRCC System Operator Subcommittee (SOS) identifies and coordinates NERC and Regional training activities for the FRCC System Operators. The SOS provides annual

training seminars for the bulk power system operating personnel, operations support personnel (engineering and information technology), supervisors and managers, training personnel and any others that are responsible for compliance with NERC and FRCC Reliability Standards.

#### 2007 FRCC System Operator Seminar

In 2007, the FRCC SOS conducted the annual training seminars over a three-week period, with two days each week for training. FRCC staff requested input from the system operators as to which topics were of the most value to them. Their responses were consolidated and forwarded to the FRCC SOS for review during the planning stages. The FRCC staff, on behalf of the SOS, forwarded a Request for Proposal to several prospective vendors for the training to be offered on the first day of the seminar. SOS met with a selected group of vendors and carefully deliberated during the process, to select the vendor which very closely matched the subcommittee's request.

The 2007 training seminars involved a vendor for the first day, and FRCC members or industry volunteers who participated as presenters for the second day. The topics covered by the vendor on the first day included *Reliability Software – What it Does, Transmission Issues and SOL – IROL, Voltage Collapse Issues and Situational Awareness*. Day 2 topics presented during the morning session by FRCC staff members and industry volunteers, included *NERC & FRCC Reliability Standards, FRCC & NERC Compliance Introduction, and Florida Transmission Messaging System (FTMS) Training*. The afternoon session of the seminar was for the FRCC Reliability Only Group members (no marketers or non-members were allowed to attend). These topics included the *FRCC Reliability Coordinator Transmission Tools and FRCC Capacity Emergency Plan*. Attendees to the seminars received a FRCC binder that included copies of the presentations that were given.

Approximately 165 certified system operators, as well as engineers and operations support personnel were trained during the 2007 FRCC System Operator Seminars. All attendees to the seminar completed a seminar evaluation form which provided an opportunity to rate the presentations, clarity of handouts and on-screen presentations (excellent to unacceptable). They also suggested topics for future seminars and stated any specific likes or dislikes they had about the vendor and FRCC courses / seminar. This information was compiled and reviewed by the FRCC SOS members following the seminar, and again when preparing for the next year's seminar.

The FRCC is a NERC-approved Continuing Education Provider and offered six (6) CEHs for the second day training session for those certified system operators who successfully completed the training requirements.

#### 2008 FRCC System Operator Seminar

The FRCC staff, on behalf of the SOS, forwarded a Request for Proposal to several prospective vendors, for the training to be offered on the first day of the 2008 seminar.

SOS met with a selected group of vendors and carefully deliberated during the process, to select the vendor which very closely matched the subcommittee's request. The SOS members worked very closely with the vendor to ensure that the subcommittee's desires were clearly understood. It was imperative to the SOS that the training be very interactive and include EOP hours and simulation training.

The 2008 annual seminars brought in over 210 certified system operators, operations support personnel, engineers, managers and supervisors for training. Many of these attendees indicated that the ever-changing industry challenges necessitated their attendance at the seminars. The attendees were very receptive to the training offered by the vendor. Laptop computers were used for the simulation exercises which gave the attendees a better understanding of what was presented and what was expected of them during the exercises. The topics covered by the vendor on the first day included *Situation Analysis and Decision Making, Power Simulator Overview, Voltage Collapse and Stability, and Disturbances / Blackouts – Analysis and Restoration*.

The topic covered during the morning on the second day was *Basic Relaying*, and was presented by industry volunteers. The afternoon session of the second day included *Special Protection Schemes* and the *2008 Summer Assessment*. Again, the afternoon session was only available to the FRCC Reliability Only Group members. The marketers and out-of-region attendees were asked to leave following lunch. FRCC offered seven (7) CEHs for the certified system operators who successfully completed the training requirements.

#### 2008 FRCC Event Analysis Team (FEAT) Recommendation Training

Also in 2008, the FRCC SOS was directed to develop a two-hour NERC approved Individual Learning Activity for the *FRCC Regional Voice Communications Procedure* and the *Relay Outage Coordination Procedure*. The SOS also included the *FRCC Generator Coordination Requirements* document, which was a recommendation of the FEAT. Twenty (20) entities reported their participation in this training. The FRCC was pleased to report that 523 personnel in the FRCC region were trained on these policies, which included 200 certified system operators.

#### 2009 FRCC System Operator Seminar

At the request of the FRCC System Operator Subcommittee (SOS), FRCC staff forwarded a Request for Proposal to several prospective vendors, for training offered on the first day of the 2009 seminar. Once the proposals were received, SOS members met with a selected group of vendors and carefully deliberated during the process, to select the vendor which very closely matched the subcommittee's request. The SOS members worked diligently with the selected vendor to ensure that the subcommittee's expectations were clearly communicated and understood. It continues to be imperative to the SOS members that any training offered by a vendor must include EOP hours and simulation training, and must include interactive exercises.

The 2009 annual seminars, held over a five-week period, brought in over 225 attendees, including certified system operators, operations support personnel, engineers, managers and supervisors for training. Many of the certified system operators indicated that the ever-changing industry challenges necessitated their attendance at the seminars. The topics covered by the vendor on the first day included *System Restoration and Blackstart*. The attendees were very receptive to the interactive training provided by the vendor. Laptop computers were available at each table for use during the simulation exercises. The attendees were presented with varying scenarios, of which each scenario included a simulated islanding event. They were all told to take good notes and were not able to use the energized island to build from but had to blackstart and build the rest of the system before they were allowed to synchronize the islands together. To give the operators a “real-time” experience, the vendor incorporated a “shift-change” during the restoration exercises wherein they had to all change places with other groups. This showed the operators the importance of good note taking.

The morning of the second day began with a presentation of the “*Changing Regulatory Environment*” giving the attendees a better understanding of what they should expect on an on-going basis. Morning presentations also included the “FRCC Policies and Procedures 2009” - *Relay Outage Coordination and Generator Coordination / NERC Reliability Standard PRC-001-1*. Also included was the FRCC Voice Communication Protocol, a training program developed for all FRCC operators that are involved in issuing and receiving directives with regard to bulk electric system reliability.

The afternoon session of the second day included a presentation on the new *Florida Reserve Sharing Group (FRSG)*. Following that presentation, the balance of the afternoon session was only available to the FRCC Reliability Only Group members. The marketers and out-of-region attendees were asked to leave following the FRSG presentation. FRCC offered five (5) CEHs for the “FRCC Policies and Procedures 2009”, applicable to NERC Standards Operating Topics and Emergency Operations. FRCC also offered two (2) CEHs for the “FRCC Reliability Process”; these hours were applicable to Operating Topics and NERC Reliability Standards. CEHs were granted for the certified system operators who successfully completed the training requirements.

Comments received during the 2009 System Operator Seminars indicated that this year was the best in many years and that the interactive simulation exercises were a much more effective method of learning and hands-on training.

2. *State Regional Entity’s assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

It was noted during the 2007 System Operator Seminars, that the class sizes each week were too large for the effectiveness SOS members were hoping to attain. This was addressed in 2008 when the FRCC SOS offered the training over a four-week period, anticipating smaller classes. Attendance was higher than expected in 2008 and class size

was still a concern to the SOS. In speaking with training representatives throughout the region this year, it is anticipated that attendance in 2009 will be higher than 2008. Because of this, the FRCC SOS hosted the 2009 seminars over a five-week period. This enhanced learning due to the smaller class size and gave the system operators better scheduling options.

The FRCC SOS has also minimized any issues that may be faced each year in the various training endeavors, by continuing to host the annual seminars at the same hotel each year, centrally located to FRCC members. The staff of this hotel knows the needs of the FRCC SOS and these seminars, and has exceeded our expectations each year.

3. *State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification.*

The FRCC SOS continually strives to improve the training seminars each year and has found that interaction among the attendees is a very vital part of a successful seminar. The SOS will work closely with any prospective vendor to ensure that the program they present will be the most beneficial to our system operators. SOS will rely on input received from system operators when planning the next year's seminar.

**C. Reliability Assessment and Performance Analysis Program**

The FRCC Regional Entity's activities focus on maintaining reliability through the continuous improvement of processes, procedures and tools aligned to ensure resource adequacy and a robust transmission system. By improving processes, procedures and tools, a more thorough analysis reflecting the reliability of the BES can be incorporated into the reliability assessment. Since January 1, 2007, there have been many improvements in the area of reliability assessment discussed below.

1. *Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.*

The FRCC Region annually performs a Load and Resource Reliability Assessment. This reliability assessment includes a review of the Reserve Margin and resource adequacy criteria. In addition, a load forecast evaluation is performed to review assumptions and uncertainties in forecast weather and economic conditions. An integral part of this assessment is fuel reliability where significant improvements have been achieved since January 1, 2007.

The FRCC formed a Fuel Reliability Working Group (FRWG) in 2007 based on a joint recommendation by the FRCC Operating Committee (OC) and the Planning Committee (PC). The FRWG was formed because the FRCC recognized that understanding fuel availability and its possible impacts on reliability was a key element needed to understand electric generation interdependency and improve fuel coordination, communication and awareness to adequately respond to fuel issues and emergencies.

FRWG oversees ongoing natural gas studies focusing on identifying natural gas availability following selected natural gas infrastructure outages. These studies provide valuable information to generator owners and operators that can help establish processes and procedures to proactively prevent loss of electrical generation due to potential fuel disruptions. The FRCC developed fuel reliability coordination plans in 2007 consistent with FERC Order 698 to improve coordination between natural gas and electric industries. These fuel reliability coordination plans were approved by the OC in October of 2007. In addition, the FRCC developed a Generating Capacity Shortage Plan identifying specific actions and notifications associated with fuel issues which was adopted by the Florida Public Service Commission (FPSC) in 2008.

The FRCC performs annual regional transmission reliability assessments and/or studies that include summer and winter Seasonal Assessments, Long Range Transmission Study, Inter-Regional Transmission Study and resource deliverability evaluations. Since January 1, 2007, the FRCC has continually improved internal procedures and developed tools to facilitate the performance and evaluation of the transmission system by consolidating study results and facilitating the coordination of responses from entities in the compilation of these assessments and/or studies. In addition, the PC approved a formal resource deliverability evaluation process in 2008 focused on the interconnection and integration of new resources as well as the evaluation of transmission service requests. This resource deliverability process allows for open participation and coordination of transmission issues related to a specific request.

2. *State Regional Entity's assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

The FRCC's effectiveness in Reliability Assessment and Performance Analysis has improved since January 1, 2007. The improvement of existing processes and procedures has increased the effectiveness of communication and coordination among FRCC members by facilitating discussions and information exchange on major topics related to reliability. The effectiveness of Performance Analysis has improved due to the enhancement and development of tools focused on improving the quality of data, reports and documents of various assessments and/or studies related to the reliability of the BES.

3. *State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.*

The FRCC expects to continue improving its effectiveness in Reliability Assessment and Performance Analysis by identifying improvement possibilities within existing processes and procedures as well as the development of new processes and procedures as needed. The FRCC expects to develop informational databases and associated tools to assist in data management which should improve the effectiveness of Performance Analysis.



## **D. Situational Awareness and Infrastructure Security Program**

*1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.*

In 2007 the FRCC re-evaluated its tools and processes supporting the Reliability Coordinator function which resulted in shifting some of these functions to the Member Services Division because the functions support the non-statutory Reliability Coordinator function, not the Regional Entity Situational Awareness function. However, the FRCC Regional Entity Division does have a limited set of tools for use that include a satellite phone and access to daily capacity and transmission information. The FRCC Region has a single Reliability Coordinator and the FRCC Member Services Staff is able to work closely with its Reliability Coordinator agent to support the NERC/Regional Entity Situational Awareness Communication Team initiative. Beginning in mid 2007, FRCC staff worked in conjunction with NERC and the other Regions to develop a "Daily Report" template that was to be supplied to NERC, FERC and the Regions in an effort to greatly increase the situation awareness of all the organizations regarding the Reliability Coordinators and their anticipated operating conditions for the coming day. The template was developed as a common platform across the Regions and was reviewed by various groups including the Reliability Coordinator Working Group (RCWG) at NERC as well as FERC Office of Reliability staff. The template was field tested in March of 2008 and was officially started for the FRCC with submittals directly to FERC in July, 2008. The Daily Report is currently submitted to FERC, NERC and FRCC Regional Entity on a daily basis (weekdays) and greatly enhances the situational awareness regarding the anticipated operating conditions for the RC footprint for the coming day.

*2. State Regional Entity's assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

The FRCC OC, which develops and monitors a budget made up of both statutory and non-statutory functions, relies on a hierarchy of subordinate committees, working groups and agents to achieve its regional reliability goals. The various reliability roles and functions are coordinated and monitored in accordance with the FRCC Reliability Process document and through established FRCC organizational processes and procedures. Two of the primary reliability goals of the FRCC OC are continuous improvement in the situational awareness of the operators interconnected within the FRCC and ensuring that adequate physical, operational and cyber security objectives are in place for the Regions' shared communications networks.

In addition, in early 2008 the FRCC Regional Entity Division was successful in working with the FRCC OC and its Reliability Coordinator (RC) agent, in developing a wide-area view display that showed the major transmission lines within the FRCC RC footprint as well as the major interconnection tie points along the northern interface. That screen, along with required confidentiality protections, had been developed and executed and were being provided directly from the RC agent to the FERC Office of Reliability,

Reliability Monitoring Center (RMC). This provided near real-time situational awareness information regarding the FRCC system directly to FERC.

In late 2008, the FRCC Regional Entity Division continued its support of NERC's situation awareness initiatives by being an active participant on the *Situation Awareness for FERC, NERC, and the Regions (SAFNR)* project. FERC, NERC, the staff from the eight REs (WECC, TRE, SERC, NPCC, MRO, RFC, SPP, and FRCC), and representatives from the U.S. RCs have worked together to implement a situation awareness and visualization project to provide near real-time information to FERC, NERC, and RE staffs. The project team was named SAFNR with a goal of the project being, to enable RCs in the United States to voluntarily provide overview displays of Interconnection system conditions to the FERC, NERC and the appropriate Regional Entities. This is being accomplished through internet-based systems that provide visual displays of the RCs geographic footprints with common core data sets. This enables FERC, NERC, and the REs to have access to near real-time system conditions, while all the relevant data actually resides on the hosting RC servers. As of June 1, 2009, the FRCC RC began providing a new situation awareness data set to FERC which included the SAFNR core data set. As of June 5, 2009 the FRCC RC began providing access to the SAFNR displays to both NERC and the FRCC Regional Entity as well. The current displays are static and refreshed every 60 seconds, and have been implemented as an interim step until the permanent SAFNR solution is implemented later on in the summer of 2009. Overall, since January 1, 2007, the FRCC Regional Entity has dramatically improved not only its situational awareness of the BPS but the awareness for NERC and FERC as well.

3. *State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.*

In early 2008, the FRCC OC also established a permanent Critical Infrastructure Protection Subcommittee (CIPS) as a forum for dissemination of CIP information. The FRCC RE will continue to provide staff support as a liaison to enable rapid dissemination of NERC Infrastructure Security Program information (Alerts, Bulletins, etc.) through its NERC Alerts program as well as NERC's CIPC activities. Going forward the FRCC will continue to support NERC's Infrastructure Security Program Objectives by providing staff support to activities that enable the continuous improvement of the situational awareness of the operators interconnected with the FRCC as well as by monitoring the activities of the Electricity Sector Information Sharing and Analysis Center (ES-ISAC) operations. Some of these activities may include CIP workshops facilitated by the RE and made available to all FRCC Registered Entities. The FRCC will also directly ensure that adequate physical, operational and cyber security objectives are in place for the FRCC's shared communications networks.

The FRCC Regional Entity will continue to work with the FRCC OC and RC agent to develop the permanent server and software solution for the FRCC SAFNR project data which will provide additional flexibility in presenting the SAFNR data to outside users

by allowing users to have a more dynamic display interface that allows for viewing data trends and more detailed information. The Regional Entity will also continue to support NERC's other situational awareness initiatives including, participation in bi-weekly situation awareness conference calls, event reviews and the event categorization efforts being undertaken by NERC Event Analysis. The FRCC Regional Entity will also continue to formalize the situational awareness information dissemination process between registered entities, Regional Entities, NERC and FERC and also promote the new web-based NERC Alerts processes to ensure registered entities are receiving relevant security or critical information from NERC in a timely manner.

## **E. Budgeting**

1. *Describe Regional Entity's activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.*

The FRCC has continued to make improvements in the development and submission of its annual business plan and budget since 2007. The development of the 2007 business plan and budget was a learning experience for the FRCC since it became apparent that many improvements needed to be made in the accounting functions of the FRCC. Specifically, in 2007, there was no infrastructure in place to support the reporting of actual cost to budget, there was no financial reporting system set up, and many of the accounting functions were not automated. Since the development of the 2007 Business Plan and Budget, the FRCC hired in June 2007 all new accounting staff who immediately implemented the installation of new software for reporting and accounting, customized and automated financial reports, implemented the NERC chart of accounts and developed a system for cost accounting that included using detailed time sheet reporting.

The FRCC 2008 Business Plan and Budget was developed and finalized by June 22, 2007. However, many of the new improvements in the accounting functions were not in place as yet for the new accounting staff to be able to accurately gauge at that time what was necessary to enhance and improve the budgeting process. Since that time, however, and in the preparation of the 2009 Business Plan and Budget that was approved by the FRCC Board of Directors on June 27, 2008, these improvements have been implemented and because of this, a better understanding was established to support the improved development of the annual business plan and budget.

In developing the business plan portion of the annual budget, the FRCC staff responsible for the various statutory functions identified in the business plan contributes to its development which results in a very well thought out and successful business plan.

In 2007, NERC accounting staff also changed and an effort began to bring together all the new regional accounting personnel (who were also all hired after June 2007) to discuss the problems with the prior budgeting processing in a collaborative effort to resolve

issues, think through processes, share ideas, better plan the process and establish the supporting documentation necessary. Through this collaborative effort, the budget process has become much more efficient and more reflective of what actual costs will be.

2. *State Regional Entity's assessment of its own effectiveness in developing its business plans and budgets and in the submission its business plans and budgets in a consistent manner with NERC and the other Regional Entities.*

By establishing a cost accounting system to apply all general and administrative costs to the various functions, it has been very easy to evaluate how a program is performing financially as to what was budgeted. The other regions are now beginning to establish the same cost accounting systems so that we have the ability to compare functional costs from region to region.

Additionally the templates that NERC has developed for the Regional Entities to use have been easy to use and make for consistency in reporting.

3. *State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.*

FRCC suggests that NERC amend the templates for 2011 to:

1. Use percentages for the comparison rather than dollars, since FERC used percentages of increase to inquire about questionable items.
2. Require that explanations be submitted with the budgets for any increase or decrease of 15% on any line item.
3. Correct common titles, names of functions, etc. before the templates are reissued.

**ATTACHMENT 4B**

**MIDWEST RELIABILITY ORGANIZATION**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



## MIDWEST RELIABILITY ORGANIZATION

### Statement of Activities, Achievements, and Effectiveness in Carrying Out its Delegated Responsibilities

#### BACKGROUND

*The Federal Energy Regulatory Commission's ("FERC" or "Commission") Regulations at 18 C.F.R. §39.3(c) require the North American Electric Reliability Corporation (NERC) to submit an assessment of its performance three years from the date of NERC's certification by the Commission, and every five years thereafter. The initial performance assessment is due to be filed with the Commission by July 20, 2009; however, the Regional Delegation Agreements (when the Regional Entities were approved by the Commission) expire in May 2010.*

*The Commission's regulations also specify that NERC's three year performance assessment shall include (among other information) NERC's evaluation of the effectiveness of each Regional Entity incorporating recommendations of NERC, users, owners and operators of the bulk power system, and other interested parties, for improvement of the Regional Entity's performance of its delegated functions; and the Regional Entity's response to such an evaluation and recommendations.*

*To initiate the process of preparing the three-year assessment, each Regional Entity was asked to prepare a document describing its activities and achievements, its own assessment of its effectiveness, and any recommendations for improvements, in performing its delegated responsibilities. The principal focus of this document should be the Reliability Standards Development and Organization Registration, Compliance Monitoring and Enforcement programs (the Regional Entity should also include a discussion of its activities in the other four statutory program areas), and should cover activities from January 1, 2007 through March 31, 2009. This document was subsequently updated through May 31, 2009.*

*Additionally, NERC, in conjunction with the Regional Entities, requested feedback from Registered Entities and other stakeholders through a performance survey. This survey was conducted through March 2009. Although the survey was designed as a feedback mechanism for NERC, there were opportunities for Registered Entities and stakeholders to comment and provide suggestions on Regional Entities' performance. While there were few specific comments for MRO, they are included as part of this self assessment.*

#### OVERVIEW

MRO is a non-profit organization (IRC 501(c)(6) based in Minnesota that is dedicated to ensuring the reliability of the bulk power system in the north central region of North America. As one of the eight Regional Entities in North America operating under delegated authority from regulators in the United States and Canada, MRO is responsible for:

1. Developing, proposing and implementing reliability standards.
2. Enforcing compliance with those standards.





3. Providing seasonal and long-term assessments of the bulk power system's ability to meet demand for electricity.
4. Providing an appeals process for enforcement matters.
5. Provide dispute resolution process for business matters.

The MRO region covers roughly one million square miles spanning the provinces of Saskatchewan and Manitoba, the states of North Dakota, Minnesota, Nebraska, and the majority of the territory in the states of South Dakota, Iowa and Wisconsin. The region includes more than 100 organizations that are involved in the production and delivery of power to more than 20 million people. These organizations include municipal utilities, cooperatives, investor-owned utilities, a federal power marketing agency, Canadian Crown Corporations, independent power producers and others who have interests in the reliability of the bulk power system.

MRO was formed in 2002 and began operations in 2005. MRO is governed by a balanced stakeholder board with independent oversight and appropriate procedures to ensure that the standards developed and enforced by MRO are fair and administered in a non-discriminatory fashion. MRO is the successor organization to the Mid-Continent Area Power Pool (MAPP) and Mid-America Interconnected Network (MAIN); both former voluntary regional reliability councils of NERC.

## I. Reliability Standards Development

- A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.**

The MRO Standards Committee was formed in the initial year of MRO operations in 2005. The Standards Committee is responsible for the MRO Regional Reliability Standards Process Manual approved by the Board of Directors and Federal Energy Regulatory Commission (Commission) in 2007.

Because MRO is a cross-border Regional Entity which operates in three jurisdictions (i.e., the United States, Manitoba, and Saskatchewan), it is important that reliability standards are recognized in all three jurisdictions and remands are quickly addressed by NERC and MRO. MRO has received recognition from the authorities in Saskatchewan and Manitoba through agreements, and as of the date of this report, no remands have been requested.

MRO is currently proposing the following regional reliability standards:

- RES-501-MRO-02 — Planned Resource Adequacy Assessment,
- PRC-502-MRO-02 — Power System Stabilizer Requirement,
- TPL-503-MRO-02 — System Performance, and
- TPL-504-MRO-02 — Sub synchronous Resonance ("SSR") Assessment

The above standards have been drafted and are being reviewed to ensure the requirements are clear, include all of the compliance elements, and follow a standard format.





MRO will propose the following Regional Reliability Standards as part of the NERC standards work plan to support four NERC reliability standards with the “fill-in-the-blank” criteria:

- BAL-002 - Disturbance Control Performance (Operating Reserve – Spinning)
- PRC-002 - Define and Document Disturbance Monitoring Equipment
- PRC-006 - Development and Documentation of Regional UFLS Programs
- PRC-012 - Special Protection System Review Procedure

**B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.**

The MRO standards development process, as approved by NERC and FERC as Exhibit C to the MRO Regional Delegation Agreement with NERC, meets the requirements set forth in Section 215 of the Federal Power Act and the related rules. Participation in the process is open to all organizations in the MRO region. Organizations have the right to participate in meetings and activities, have their opinions considered as part of that process, and appeal decisions of MRO. These organizations also have the right to register and vote on a regional reliability standard proposed by MRO. Notice of all meetings of the MRO Standards Committee and drafting teams are provided on the MRO website, and MRO provides a monthly standards newsletter to brief stakeholders on standards development. To view a copy of MRO’s standards newsletter, please follow this link: [://www.midwestreliability.org/STA\\_newsletter.html](http://www.midwestreliability.org/STA_newsletter.html)

MRO Standards Development Process parallels the “ANSI” and NERC processes, which provides for a balance of interests containing seven industry segments. Approval of a MRO Regional Reliability Standard or revision to a MRO Regional Reliability Standard requires:

- a quorum, which is established by at least 4 of the Segments submitting a response with an affirmative vote, a negative vote, or an abstention; and
- An affirmative vote from at least two-thirds of the segments participating in the vote. Each segment vote is determined by the majority of the votes cast in the segment, either affirmative or negative. Abstentions and non-responses are not counted.

MRO’s standards development process ensures due process by providing public notice of the intent to develop a Regional Reliability Standard on the Reliability Standards Voting Process (RSVP) application. This web application automates the voting, commenting and tracking of any proposed standard in order to maintain a record of its development. The tracking site allows all interested parties to submit comments during the commenting period and provides an appeals process.

**C. State Regional Entity’s assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**







MRO's effectiveness in reliability standards development has steadily improved since its inception in 2005. Upon its formation, MRO performed a detailed analysis of its predecessor's regional processes and requirements for standards. Once this process was complete, MRO educated the broader stakeholder groups of the Standards Development Process under the new, mandatory standards regime established by Section 215 of the FPA.

MRO developed an on-line application known as "RSVP" (discussed above), to track and provide a record of the regional standards development process. The application greatly improves how standards are presented and evaluated by stakeholders and allows MRO staff to collect comments from across the geographical footprint. Votes are also easily compiled from ballot body members. The application is available for use by other Regional Entities.

MRO staff has participated in both NERC and MRO workshops in 2007 and 2008 to better communicate and educate stakeholders about standards development and the pending impact to the bulk power system.

MRO is currently proposing four Regional Reliability Standards that are being developed in a coordinated effort with NERC and the other Regional Entities and are included in NERC's three-year standards development work plan. MRO believes that Regional Reliability Standards can be developed more easily if NERC provides guidance on the basic requirements necessary for all of the Regional Reliability Standards. In the future, there may be a shift from developing Regional Reliability Standards to developing regional variances to NERC standards. The due process and public review of variances should be subject to the same development process as Regional Reliability Standards.

**D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development**

The MRO Standards Committee is primarily responsible for assuring that the standards development process is effective. This balanced committee meets frequently to review its effectiveness and establish improvement plans.

MRO believes that the priority needs to be on North American-wide and Interconnection-wide reliability standards. NERC and the Regional Entities should refocus their collective efforts on expediting the "fill in the blank" standards and place a hold on any non-emergency reliability standards. The speed at which the industry can absorb new standards is resource limited. The priority should be to fix the "fill in the blank" standards (those standards not originally accepted by the Commission), and standards that address emerging issues or risks found through Event Analysis.

MRO sees a benefit in adding linkages between assessments and compliance and standards development. These benefits include a better understanding of compliance requirements and addressing emerging issues that may require accommodation in future standards (e.g. issues identified in long term assessments). MRO staff provides the necessary forums to assure there is sufficient information sharing.

In addition, MRO communicates relevant information to Registered Entities and other stakeholders by providing standard workshops, webcasts, and other communications.





## II. Organization Registration and Compliance Monitoring and Enforcement Program

- A. Describe Regional Entity's activities and accomplishments in OC/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007. This description should emphasize quantitative information, e.g.: Staffing; numbers of registered entities registered; numbers of workshops, seminars, training and education sessions, etc. conducted; numbers of compliance audits conducted and reports processed; numbers of other compliance processes conducted and processed, e.g., spot-checks, self-certifications, etc.; numbers of notices of violation issued and processed; numbers of mitigation plans processed.**

The MRO 2007 Compliance Monitoring and Enforcement Program (CMEP) activities included the following initiatives.

- Entity registration was a large initiative utilizing the NERC Compliance Registration Criteria to identify owners, operators, and users of the bulk power system. The MRO registry expanded from 35 to 120 Registrants by year end.
- Compliance and Enforcement Flow Charts were developed by reverse engineering the CMEP program document. The flow charts have proven to be an effective tool for training Registrants and MRO staff on the CMEP processes.
- There were nine audits performed by MRO staff. MRO does not use contractors or consultants as auditors at this time.
- MRO had a total of 133 pre-June 18th violations. 113 violations were confirmed and mitigation plans were approved while the other 20 were dismissed.
- MRO held one reliability workshop in May 2007. All material presented at the workshop was made available to the Registered Entities unable to attend.
- The annual self-certification was performed in the fourth quarter of 2007 and resulted in approximately 500 submittals requiring additional review by MRO staff. The 2007 self-certification resulted in the discovery of 31 alleged violations.
- MRO compliance staff participated in both NERC and Regional working groups with the overall objective of increasing consistency between all regions and enhancing transparency with the Registered Entities.
- The MRO 2008 Annual Implementation Plan was developed and submitted to NERC by the November 1, 2007 deadline. NERC approved the plan.

The 2008 Compliance Monitoring and Enforcement Program (CMEP) activities included the following initiatives:

- There were 17 audits performed using a refined method of reviewing the compliance evidence submitted by Registered Entities. All compliance audit reports were developed and submitted to the Registered Entity and to NERC within the defined CMEP timing criteria.





- The Compliance Data Management System (CDMS) 4.0 went into production in March, and MRO received positive feedback from Registered Entities pertaining to the new and improved compliance information management tool.
- Entity registration continues to be an ongoing effort. In addition, MRO initiated a project in 2008 where staff performs an inventory of the bulk power system generation facilities and transmission elements that meet NERC Compliance Registration Criteria. This project was completed in first quarter of 2009. All pre-June 18, 2007 violations were validated for completion and officially closed in May 2008.
- MRO held two reliability workshops in 2008 that were attended by eighty-two percent of MRO's Registered Entities. Materials presented at both workshops were made available to the Registered Entities unable to attend.
- In July, 2008, a self-certification was performed by all MRO Registered Entities for the CIP-002 through CIP-009 Reliability Standards. MRO submitted the summary report to NERC prior to the required deadline. MRO received an action plan from those Registered Entities identified as behind schedule pursuant to the defined timeline found in the CIP standard implementation plan. MRO continues to track the status of these action plans.
- The annual self-certification resulted in approximately 750 submittals requiring additional review by MRO staff and has resulted in the discovery of two alleged violations. MRO believes the overall improvement of the self-certification results from 2007 to 2008 is a result of the educational workshops provided by MRO and of the experience gained by Registered Entities operating under the CMEP.
- MRO compliance staff participated in NERC and Regional working groups with the overall objective of increasing consistency between all regions and enhancing the transparency with the Registered Entities.
- The MRO Compliance Committee monitors MRO staff in the implementation of the CMEP. The committee is currently working on the development of metrics to be used for measuring the performance and quality of work performed by MRO.
- MRO compliance staff received the required NERC auditor training in 2008. In addition, MRO (in conjunction with the other Regional Entities) worked with an outside vendor to develop a more hands-on, detailed auditor training course based on the authoritative audit principles. To date, all MRO compliance staff has received this new and improved training.
- MRO created and implemented a new process called 'Incident Reviews' to supplement its efforts regarding the CMEP. MRO established its responsibility to review and assess incidents (such as disturbances) that occur on the Bulk Power System (BPS) to determine if the system responded as expected, and whether the Registered Entities involved responded prudently according to the Reliability Standards and good utility practice in protecting BPS reliability. The possible outcomes of an Incident Review include: no further action; escalation to a formal Compliance Violation Investigation (CVI); or a possible alleged violation of a Reliability Standard. A non-public report is provided to the Registered Entities, NERC, and if applicable, the Commission. MRO staff





will initiate an “incident inquiry review” once they become aware of a system incident, disturbance, or event. This process was implemented six times since inception.

The 2009 Compliance Monitoring and Enforcement Program activities include the following initiatives:

- MRO initiates spot-checks on a monthly, quarterly, and annual basis. In addition to performing spot checks in 2009 as described in the NERC Implementation Plan, the MRO 2009 plan calls for accelerated, more frequent “random” spot checks of Registered Entities, subject to staffing priorities.
- The MRO 2009 Annual Implementation Plan was developed and submitted to NERC by the November 3<sup>rd</sup> deadline. MRO is using the 2009 NERC audit questionnaire in the development of the MRO 2009 audit “packet” that is included in the sixty-day notice of an audit to the Registered Entity.
- MRO completed the second CIP-002 through CIP-009 self-certification in January 2009 with reports completed in March 2009. MRO is currently preparing to implement the third CIP self-certification in July 2009.
- Compliance assessment, mitigation, and validation are a continuous effort. The following represents the status of alleged violations from June 18, 2007 through May 31, 2009.

97 total violations

- 97 violations reported to NERC (as of May 31, 2009)
- 4 violations processed through settlement
- 13 violations in settlement discussions
- 20 violations dismissed
- 53 violations have been resolved through completed mitigation plans which were validated as complete by MRO staff
- 1 violation declared as “mitigation complete” by Registered Entity, but validation remains pending by MRO staff
- 26 violations remain open and are within the CMEP timing criteria

Violation Timeframe	Number of Possible Alleged Violations	Number of Dismissed Alleged Violations	Number of Violations with Notice of Alleged Violations	Number of Violations with Notices of Confirmed Violations Filed with NERC	Number of Violations Resolved through Completed Mitigation Plans
<b>2007 Pre-June 18</b>	133	20	0	0	113
<b>2007 Post-June 18</b>	46 <sup>1</sup>	8	37	37	38
<b>2008</b>	30 <sup>2</sup>	11	14	11	14
<b>2009 YTD</b>	21	1	0	0	1

<sup>1</sup> Includes 1 violation resolved through settlement

<sup>2</sup> Includes 3 violations resolved through settlement

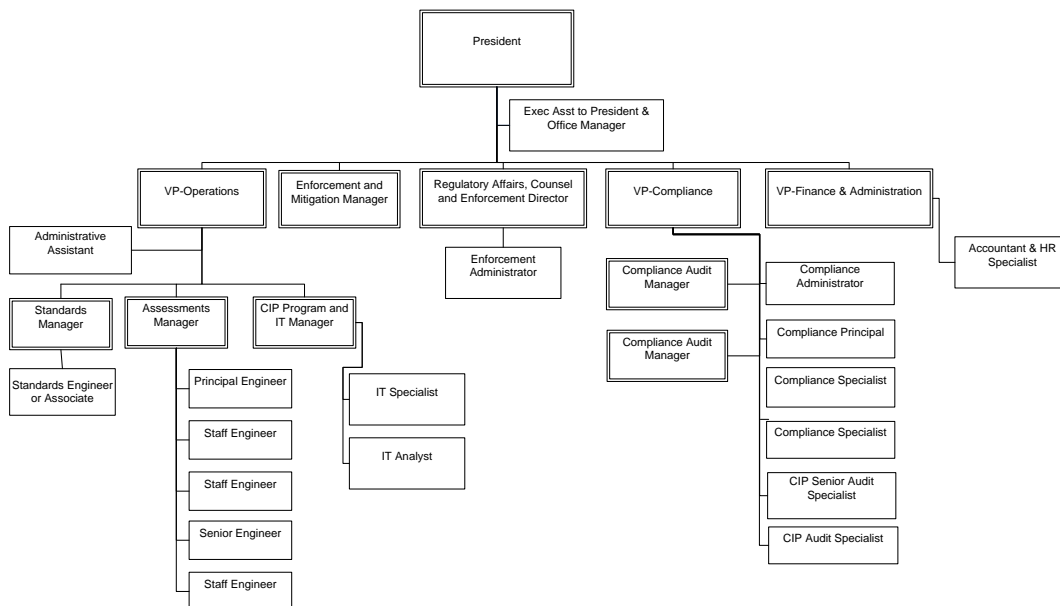




Standards Most Frequently Violated	Frequency	% to Total
PRC-005-1 Trans. And Gen. Protection System Maint. and Testing	24	25%
CIP-001-1 Sabotage Reporting Procedures	10	10%
CIP-004-1 Personnel and Training	10	10%
FAC-003-1 Vegetation Management Program	10	10%
PRC-004-1 Anal. And Mitigation of Trans. And Gen. Protect. Sys. Mis.	6	6%

**Staffing.** MRO increased its staffing in 2008. MRO staff performs all processes associated with the compliance and enforcement program. MRO does not use outside consultants or contractors at this time for auditing purposes. As previously noted, MRO does not use stakeholders in any compliance and enforcement determinations, including audits or other discovery methods. MRO added a Director of Regulatory Affairs and Enforcement in 2008, an Enforcement Administrator and Senior Critical Infrastructure Protection Audit Specialist in 2009, and established an Enforcement and Mitigation Manager position in 2009. In addition, MRO will be adding two positions in the compliance area to address the increased work load. MRO Compliance and Enforcement staff follows the structure illustrated below:

**Midwest Reliability Organization**  
April 6, 2009



Date Updated: 04/06/09





**Organization Registration.** Registration is an ongoing effort. In 2007, MRO sponsored several conference calls, WebEx and a workshop which included new and prospective entities and encouraged asset owners and operators to identify prospective Registered Entities. In addition, MRO specifically reached out to smaller entities which were not part of the previous voluntary construct. A project pertaining to the identification of transmission elements and generator facilities is currently underway by MRO. MRO has expanded registration to include an inventory of the elements of the bulk power system and has identified all elements and facilities that meet NERC registration criteria for the bulk power system. This is an extensive project, however, MRO believes it is necessary to complement the functional registration and establish a more accurate, complete registry.

In performing this process, MRO has found a number of jointly owned facilities which will result in the development of additional Joint Registration Organizations. MRO has been attentive in developing processes to allocate or assign CMEP responsibility where a Registered Entity's operating boundary crosses multiple Regional Entity boundaries. This multi-Region Registered Entity (MRRE) project will eliminate redundancy where Registered Entities will have a designated "host" Regional Entity who will act as a lead coordination point for the Registered Entity. The project also includes identifying a "host" for Purchasing Selling Entity (PSE)-only Registered Entities, and where the Purchasing Selling Entity has one primary office and yet is registered in all eight regions.

**B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its Region.**

MRO is following the requirements as defined by the CMEP Rules of Procedure (ROP), and the delegation agreement between MRO and NERC. These documents provide the foundation for monitoring and enforcing reliability standards across the region. MRO has been adequately staffed to carry out its responsibilities under the CMEP. Many MRO staff members responsible for implementation of the CMEP have previous employment experience within the industry, specifically within the MRO Region, and have extensive knowledge of the operation of the bulk power system.

MRO is a cross-border Regional Entity and operates in three jurisdictions: Manitoba, Saskatchewan, and the United States. In the United States, MRO has a Delegation Agreement which stipulates its authority on enforcement of Reliability Standards. In Manitoba, MRO and NERC executed an Interim Agreement which specifies aspects of enforcing Reliability Standards. In Saskatchewan, MRO and NERC have approved a Memorandum of Understanding which was effective December 11, 2008.

MRO recognizes that in operating in three distinct jurisdictions, staff must use care in performing its responsibilities consistent with the applicable agreements. MRO has worked to establish process flowcharts to assist in understanding the unique characteristics in the jurisdiction and they can be found at:

[://www.midwestreliability.org/COMP\\_audit\\_information.html](http://www.midwestreliability.org/COMP_audit_information.html)





### C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards

An important foundation for effectively enforcing reliability standards is to ensure that the organization itself is free of conflicts and able to render impartial enforcement decisions. The following facts assure that MRO is properly aligned to preserve the public trust in its conduct of enforcement decisions:

1. MRO is not affiliated with any bulk power system operators, owners, or users.
2. MRO governance structure meets the requirements set forth in Section 215(e)(4) of the Federal Power Act and has the necessary procedures in place to assure a stakeholder Board does not impair or otherwise impede the ability of staff to render impartial enforcement decisions. MRO has established rules that assure balance in its decision-making committees and subordinate organization structures to assure that no two industry sectors can control any action and no one industry sector can veto any action. MRO has adopted and implemented the uniform CMEP as approved by the Commission which provides for fair and impartial procedures for enforcing Reliability Standards.
3. MRO employs trained staff, or independent consultants as necessary who are free of perceived or real conflicts, subject to NERC's code of conduct, and consistent with NERC rules in the performance of any enforcement methods under the Compliance Monitoring and Enforcement Program. Employees are subject to these rules as a condition of employment, and consultants are subject to these same rules through independent agreements. Stakeholders do not participate in any discovery methods or enforcement determinations (except as permitted through the hearing procedures in the CMEP). In addition, MRO, through Commission requirements, recognizes Generally Accepted Government Auditing Standards (GAGAS) (July 2007 Revision), in particular paragraph 2.05.

*2.05 The ethical principles that guide the work of auditors who conduct audits in accordance with GAGAS are:*

- a. the public trust;*
- b. integrity;*
- c. objectivity;*
- d. proper use of government information, resources, and position;*
- e. professional behavior.*

Although MRO is not a government auditor, MRO recognizes that its position must be used for the purposes intended through its delegated authority and that misuse of this position would undermine MRO's ability to impartially enforce reliability standards and otherwise carry out its responsibilities consistent with maintaining the public trust. All MRO staff is under the same confidentiality, conflict, and code of conduct rules and is expected to report any possible alleged violation regardless of their responsibilities at MRO.

MRO emphasizes the training of its staff in order to sufficiently carry out its responsibilities. In addition to NERC training, MRO and the rest of the Regional Entities supplemented the NERC training with third party training to provide the necessary skill set for staff. For example,





experienced operational and engineering personnel are usually best suited to perform discovery work required by the CMEP, but most need the necessary training in due process and audit and investigation techniques.

MRO has segregated its compliance (e.g. discovery) from enforcement activities. Once a possible or alleged violation is discovered, MRO staff responsible for discovery meets with enforcement staff to review facts and circumstances in order for enforcement staff to derive an enforcement decision consistent with the NERC Sanction Guidelines. In addition, there is a review of the Reliability Standard and the Commission's guidance (e.g. Order 693), if applicable, on the particular Reliability Standard to assure the interpretation is consistent with NERC and Commission guidance. MRO staff reviews the Reliability Standards and the Commission Orders prior to discovery activities.

If a Registered Entity believes it is being treated unfairly during the conduct of discovery, MRO encourages the Registered Entity to escalate the matter to senior management at MRO. While MRO recognizes its duty to carry out its responsibilities to protect reliability of the bulk power system, MRO respects those who operate the system and will allow them to discuss matters directly with senior management. This provides an effective "check and balance" of MRO's staff conduct in discovery and can be a source for improvements in the performance of the work, while setting the expectation to the Registered Entity that staff must carry out its responsibilities consistent with the delegated authority. After discovery, Registered Entities are informed of the due process protections highlighted in the CMEP. MRO, through its various workshops, has provided education to the Registered Entities on their due process protections once an alleged violation has been discovered.

**D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed**

MRO's effectiveness has significantly improved since the inception of mandatory Reliability Standards. The rigor, quality, and professionalism, using Government Auditing Standards (July 2007 Revision) as a benchmark for audits, for example, has increased based upon informal comments from MRO and other staff from Registered Entities and Regions.

The quality and professionalism of the compliance program implementation by MRO has improved primarily due to enhanced training of staff. As a result, MRO staff is more knowledgeable of NERC Rules of Procedure, CMEP, and GAO auditing techniques and practices. This administrative knowledge, coupled with existing industry experience, provides a very credible, seasoned group of professionals to enforce Reliability Standards in the region. In addition, the Registered Entities are more aware of their obligations and requirements related to meeting the applicable Reliability Standards and primarily due to education and training, the Registered Entities have improved documentation, procedures, and processes resulting in overall improved quality of evidence demonstrating compliance.

In addition, MRO provides quarterly CMEP reports to stakeholders on CMEP activities and key findings. To view a copy of MRO's quarterly CMEP reports, please follow this link: [://www.midwestreliability.org/COMP\\_cmepe\\_updates.html](http://www.midwestreliability.org/COMP_cmepe_updates.html)







MRO reviews the feedback from its workshops and responds to areas for improvement. MRO held the first of its 2009 Reliability and Compliance workshops on March 25, 2009. The attendees included 137 participants from over 73% of MRO's Registered Entities. The workshop presented an overview of the MRO Delegation Agreement activities with a focus on the Critical Infrastructure Protection Standards and demonstrating compliance for protection system (PRC standards). Suggestions and comments regarding the format and content of the workshop may be found at [://www.midwestreliability.org/events\\_4.html](http://www.midwestreliability.org/events_4.html)

**E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.**

MRO has proposed the development of processes to enhance the Registry where a Registered Entity's operating boundary crosses Regional Entity boundaries. This multi-Region Registered Entity (MRRE) project will eliminate redundancy where Registered Entities will have a designated "host" Regional Entity as it pertains to the implementation of the CMEP. Please refer to the "Organization Registration" section above.

MRO enhanced its auditing techniques (statistical and random sampling, extensive evidence review prior to on-site audits to determine priority and/or possible risk areas) and has also enhanced the auditor training by studying the GAO requirements and developing more extensive training with an expert third party consultant. MRO and the other Regional Entities are proposing the development of additional training modules to increase the knowledge base of staff performing responsibilities under the delegated authority.

MRO proposed the implementation of a defined audit process pertaining to the Coordinated Function Registration, (for example, the Midwest ISO Balancing Authority (BA) certification process). MRO believes that an audit must be performed using the Reliability Standard requirement matrix as approved by the functional certification team to assure that there are no "gaps" in responsibilities in meeting requirements of the Reliability Standards.

MRO staff actively participates in working groups and other forums where compliance and enforcement staff from NERC and the regions work together in the identification of compliance program enhancements. MRO stakeholders are encouraging the formation of a "forum", which will be funded by those Registered Entities in the MRO region who have a common interest to share lessons learned with one another. This group was proposed by a stakeholder at the last workshop on March 25, 2009, and will not be affiliated with MRO.

### **III. Other Program Areas**

**A. Reliability Readiness Evaluation and Improvement Program**

**1. Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.**

MRO has been a co-leader, along with a NERC representative, on a number of Readiness Evaluations in 2007 and 2008 at Registered Entities including American Transmission Company, Lincoln Electric System, Southern Minnesota Municipal Power Agency, Manitoba





Hydro, Minnesota Power, and Saskatchewan Power Company. A Readiness Evaluation is a process that probes all facets of a company's functions and could potentially focus on any NERC standard, especially if the Registered Entity is failing to meet requirements of a Reliability Standard. In particular, a Readiness Evaluation focuses on how well the Registered Entity is performing the functions for which it is registered and includes practical recommendations to enhance its operations.

MRO and NERC used a Readiness Evaluation of Saskatchewan Power Company to review its operations to certify that it was capable of performing the functions of a Reliability Coordinator and the other functions it has registered for on the NERC compliance registry.

- 2. State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

MRO participated in a number of Readiness Evaluations and followed up on recommendations that resulted from the evaluations to insure they were implemented or considered. This is a valuable program as each entity has an opportunity for an evaluation. In MRO's judgment, the value of the program as designed declined following the initial review and as other efforts in the CMEP area accomplished similar goals.

- 3. [Discussion of proposed improvements not needed, since this program is being phased on in the first quarter of 2009.]**

With the elimination of the Readiness Evaluation program, MRO has dedicated more resources to analyze events, incidents inquiries and reviews. MRO staff believes that thorough analysis of system disturbances through Event Analysis and informal means such as incident inquiries represents valuable lessons on bulk power system reliability. Recommendations resulting from Event Analysis, such as the September 18<sup>th</sup>, 2007 event, are valuable to assure that the Registered Entities are addressing key findings resulting from these analyses.

## **B. Training, Education and Operator Certification**

- 1. Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.**

MRO recently acquired a web-based training system called System Operator Training Solution (SOTS). SOTS is a web based training application built to meet the complete needs for both individuals and companies for the power system operator continuing education program as designed by NERC. The program includes over 130 training modules developed by a training development company on topics which support System Operator training needs. The SOTS application will be deployed later in 2009.

MRO has organized annual standards workshops as a way to engage the stakeholders within MRO and provide information and education about the Reliability Standards development.





In 2007, one workshop was held in the spring and was well attended by Registered Entities. The focus of this workshop was to introduce the standards development program to the stakeholders. Topics included:

- Basic elements of the mandatory reliability standards regime
- Distinction between Regulatory-approved standards and NERC-approved standards
- Standards process overview

In 2008, a second workshop was held and drew about 75 attendees from the MRO Registered Entities. The focus of this workshop was basic education about the standards program. Topics included:

- Overview of the regional standards development process and potential standards
- Key standards to be developed in the NERC three year work plan, including important “fill in the blank” standards
- Web Site tutorials for Registered Entities
- Open panel discussion

Attendees from both workshops provided positive feedback on the opportunities to learn about the standards development process.

MRO has also organized several Compliance Seminars in the past two years.

MRO’s first Compliance Seminar was held on May 31, 2007. Attendance included 135 representatives from 82% of entities registered in the Region. The focus of the seminar was preparing for and training on the NERC Compliance Monitoring and Enforcement Program (CMEP) for the upcoming start of mandatory compliance with the Regulatory Approved Standards.

In 2008, building on feedback from Registered Entities, MRO held two seminars. Total attendance for the seminars was 210 representatives from over 86% of MRO’s Registered Entities. Topics covered included elements of a strong compliance program, a general overview of the NERC CMEP, tools used by MRO to track compliance, preparation for the CIP Self Certification, and enforcement processes. Preparing for a Compliance Audit was the focus of a panel discussion of three MRO Registered Entities that had recently participated in the audit process.

For 2009, MRO plans to hold two seminars. Each seminar will focus on specific discovery methods outlined in the NERC CMEP. Panel presentations will focus on steps taken by Registered Entities to build strong compliance programs. In the first workshop of 2009, a review of protection system requirements and CIP requirements was provided to the Registered Entities.

The 2009 seminars will also include topics related to standards development, reliability assessments, and more detailed critical infrastructure protection reviews. MRO is dedicated





to the continued delivery of training that meets the ever-changing needs of the electric industry.

- 2. State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Much of MRO's training and education is directed at primary functional areas that MRO is responsible for through the delegation agreement. The workshops, webinars, and conference calls to support these responsibilities are normally done in conjunction with NERC. MRO works with NERC regarding Operator Certification. In addition, the new System Operator Training System (SOTS) program will provide an effective means for continuous training for the Registered Entities.

MRO-sponsored seminars have been very well attended. Attendees have provided positive and constructive feedback on the topics and have shared ideas on future seminars. MRO structured the 2009 seminars based on feedback from Registered Entities and the anticipated CMEP implementation plans.

- 3. State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification.**

Refer to Items 1 and 2 above.

MRO would like to spend the majority of its time on "prevention" by educating and training Registered Entities on the CMEP, Reliability Standards, and requirements. A compliance program which meets the criteria in NERC Sanction Guidelines and Commission's Policy Statement on Compliance dated October 18, 2008 is an essential element to consider for a Registered Entity's compliance activities. Reliability workshops and other outreach type programs support "prevention". A new Registered Entity forum group called the Mid-Continent Compliance Forum (MCCF) was created at the MRO March 2009 workshop. The first meeting is scheduled to be held in July where MRO compliance and enforcement staff will provide information and address questions.

### **C. Reliability Assessment and Performance Analysis Program**

- 1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.**

The Reliability Assessment area of NERC has undergone several changes in the past few years and has realized many improvements as a result. For example, NERC and its Regional Entities have worked closely to improve on the definitions and criteria for how future generation should be included in the long-term assessment. A realistic estimate of future generation is critical for predicting accurate reserve margins. MRO has embraced these new definitions and has communicated these new definitions and processes to the recipients of





the assessment data requests. This helps to assure that data is provided consistently throughout the region, and provided only once for accuracy.

The MRO region continues to collect reliability assessment data from its individual Registered Entities. Although this takes more effort, it allows MRO to have a high level of granularity that is often needed in the assessment process. It also helps us to investigate and verify the data more quickly if there is an unexpected change from the previous year.

The MRO region has the potential for a significant increase in wind generation installations. As of June 1, 2008, the MRO region had 4,000 MW of nameplate wind generation and the nameplate capacity has increased by 25% within 6 months (as of December 1, 2008). The generation interconnection queue holds over 38,000 MW of additional wind generation. In response to this, MRO formed a wind generation modeling task force. A wind generation modeling manual was created to help educate the regional data reps on how best to submit wind generation data to the Model Building Subcommittee. Additional progress is still needed within the industry regarding wind generation modeling, particularly development of dynamics models. MRO will closely track this effort as tools and improvements are made in this area to assure that models reflect wind generation as accurately as possible. MRO will also make every effort to collect proprietary IPP wind generation data for modeling accuracy.

MRO has coordinated with the ReliabilityFirst Organization, the Regional Coordinator covering much of the Midwest, and other Registered Entities to provide NERC with an assessment of serving 15% of energy with variable generation (i.e. wind) as requested in the NERC 2008 LTRA Scenario Assessment. The information for this assessment consists of data submittal and narrative information. The data portion of this assessment was submitted in May 2009, and the narrative section will be submitted in July 2009.

In March 2007, MRO completed a full review of its regional Under Frequency Load Shedding (UFLS) program. Potential improvements to the existing program and opportunities to increase coordination with generation protection were identified and MRO recommended they be incorporated into the regional UFLS standard that is currently being drafted.

MRO has formed the Protective Relay Subcommittee as a result of the 2003 Northeast Blackout and to effectively manage the NERC PRC standards that resulted. Key responsibilities of this group include: reviewing transmission and generation mis-operations on a quarterly basis, reviewing new and existing Special Protection Systems to meet NERC criteria, and establishing regional criteria for disturbance monitoring equipment. This group is also working on a regional procedure to effectively manage system disturbance analyses.

On September 18, 2007, the MRO region experienced a system cascading event which ultimately resulted in two islanding conditions, loss of load and generation, and UFLS. MRO, jointly with its members, Registered Entities, and NERC staff completed a comprehensive analysis of this system disturbance. Roughly 30 recommendations were developed from the lessons learned. These recommendations will be sent to appropriate entities through either the NERC Alert procedure or through MRO staff correspondence. MRO staff will provide





quarterly reports to the Board on the progress of addressing the recommendations. A public version of the Event Analysis report can be found at [.midwestreliability.org](http://midwestreliability.org).

**2. State Regional Entity's assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

MRO has been staffed to meet the requirements of the Reliability Assessment area since January 1, 2007. Each seasonal and long-term assessment has been accurately performed and has been submitted to NERC within the due dates. MRO staff has accurately responded to all data requests in a timely manner, meeting the due dates specified by NERC, and MRO provides support to the NERC Reliability Assessment process by actively participating in the various NERC groups that develop the assessments.

MRO staffing has increased since January 1, 2007 to meet the growing demands in the area of Reliability Assessments, and this increase has created more balance in the use of external, independent consultants and staff. MRO expects to be able to perform the Reliability Assessment responsibilities more effectively by utilizing staff to actively participate on the various NERC groups that support Reliability Assessments and Performance Analysis. In addition, MRO staff will take an active role in tracking industry alerts and recommendations from NERC and MRO.

**3. State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.**

The responsibilities within the NERC and Regional Entity Reliability Assessment area continue to grow each year. New NERC groups are being established under the NERC Planning and Operating Committees and existing NERC groups are taking on additional responsibilities. Staff from the Regional Entities is required to support these group efforts. Additional staff is also required for the increase in data requests that are expected to occur, to establish reliability metrics and to perform additional assessments. MRO is committed to meeting all of the requirements and needs associated with Reliability Assessments and Performance Analysis. By adding staff in 2009, MRO will be able to actively participate in the NERC groups as required to help assure reliability for the region.

One way to help the Regional Entities become more effective in assessing reliability would be to reassign the remaining fill-in-the-blank standards (that presently apply to the Regional Reliability Organizations) to the appropriate Registered Entity (often the Planning Authority or Reliability Coordinator). This would eliminate the confusion as to what the Regional Entity's role is in relation to NERC Reliability Standards and Reliability Assessments.

**D. Situational Awareness and Infrastructure Security Program**

MRO is working with the other Regional Entities and NERC to establish the tools which will enhance the ability of MRO to perform this program. Currently, Reliability Coordinators provide the means for situational awareness across North America. MRO staff is included on the pertinent e-mail exploders and other communications means. MRO has budgeted the necessary funding to deploy the available Situational Awareness tool(s) by July 1, 2009.





**1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

NERC identifies its Situational Awareness and Infrastructure Security (SAIS) mission as:

1. Maintain a high level awareness of conditions on the bulk power system and rapidly communicate substantive changes in those conditions to relevant parties.
2. Understand emerging threats and vulnerabilities to the reliability of the bulk power system and direct activities to mitigate them.
3. Develop and maintain tools that meet the needs of our overall reliability mission as the international ERO.

The Regional Entities play an important role in helping NERC meet its goals and objectives in the Situational Awareness area. MRO has been an active participant working with NERC to clarify roles and responsibilities on a going-forward basis. Current Situational Awareness activities include, but are not limited to, the following:

1. Compile a list of Situational Awareness information currently collected by NERC, Regional Entities, and others such as Reliability Coordinators and Regional Transmission Organizations. Define what is currently shared with FERC and in what form.
2. Share the catalog of information with FERC and describe the benefits and drawbacks of the Situational Awareness information. With FERC, identify the information necessary to meet its Situational Awareness needs. Develop protocols and procedures to accomplish the Situational Awareness information exchange with FERC, with a careful eye to protecting confidential information.
3. Evaluate existing Situational Awareness tools and recommend rapid deployment alternatives, including the proposed NERC tool for this purpose (budgeted for deployment by July 1, 2009).
4. Implement a feedback mechanism to ensure the goals of the Situational Awareness information exchange continue to be met.

**2. State Regional Entity's assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

MRO is a cross border Regional Entity responsible for implementing the duties and assignments as described in the Delegation Agreement with NERC. MRO does not perform functions beyond the Delegation Agreement (i.e., such as performing the Reliability Coordinator function etc.). However, MRO is dedicated to the situational awareness and infrastructure security initiative and acknowledges the importance of; maintaining a high level awareness of conditions on the bulk power system and rapidly communicating substantive changes in those conditions to relevant parties; understanding emerging threats and vulnerabilities to the reliability of the bulk power system and directing activities to





mitigate them; and providing assistance in the development of tools that meet the needs of the overall reliability mission of NERC, as the international ERO.

There are three Reliability Coordinators in the MRO region. The Reliability Coordinators and the individual transmission operators have provided information to MRO on events, unusual operating conditions and potential operating issues so that MRO staff has the appropriate “awareness”. The upcoming plans for implementing a situational awareness tool will greatly increase MRO’s access to information, preparedness to address issues, and ability to provide timely information to others, including regulators.

In late 2008, the MRO Board approved the creation of a Security Committee. The work of this committee is just getting started, however, we believe this committee will improve or enhance situational awareness and infrastructure security by providing a forum for Registered Entities responsible for adhering to the cyber and physical reliability standards to openly discuss and exchange ideas and concepts.

**3. State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.**

MRO will continue to work with NERC and regulatory staff to successfully implement the Situation Awareness tool(s) as necessary. MRO will continue to participate on the NERC/Regional Entity Situation Awareness communication team to ensure plans and protocols for communicating Situational Awareness information between and among NERC, FERC, Regions, and other relevant stakeholders are consistent and coordinated. This includes the identification and deployment of any applications necessary to rapidly exchange situational awareness-related information and foster collaboration with information sharing partners. Examples include; working with NERC to develop and implement an industry notification system; creating and maintaining e-mail lists organized by subject matter expertise; and working with Critical Information Protection Committee to define and implement a new web-based threat and incident reporting system. The MRO Security Committee has the overall objective of providing a forum for Registered Entities to discuss issues and concerns related to cyber and physical security within the MRO region.

**E. Budgeting**

**1. Describe Regional Entity’s activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.**

MRO successfully obtained NERC and FERC approval of the United States-portion of its 2007 and 2008 business plans and budgets and eventual approval of its 2009 business plan and budget. Similar to the other Regional Entities and NERC, MRO has been able to improve its budgeting estimates and processes since submission of its 2007 business plan and budget, primarily because the expectations of Regional Entities have become clearer over the past two years and MRO has gained experience in performing Regional Entity duties.







MRO followed NERC guidance and used NERC templates when it prepared its 2007 business plan and budget. At the time the 2007 Regional Entity budgets were developed, however, NERC and FERC expectations about Regional Entity performance was just beginning to evolve. No Regional Entity had experience in performing the duties under the Regional Delegation Agreement. MRO's 2007 business plan and budget was developed in accordance with NERC guidance, but the budget projected higher than the actual expenditures. The primary reason for this positive variance was the budget anticipated a full year of operations, but (a) MRO's Delegation Agreement was not conditionally approved by FERC until April 2007; and (b) per FERC Order, the implementation of mandatory standards did not begin until June 2007. Because of this, MRO delayed increasing its staffing until mid-2007 and the implementation of its capital (hardware and software) projects until 2008. In addition, MRO had a more difficult time than anticipated in locating and hiring qualified staff, so it experienced unintended vacancies through mid-2008.

Since 2007, MRO gained experience as it performed its Regional Entity duties in accordance with its Delegation Agreement, the NERC Rules of Procedure, NERC guidance, and FERC orders. All MRO employees track their time using electronic timesheets that incorporate the functional categories in the NERC Chart of Accounts and separate time spent on non-statutory duties.

As MRO's experience as a Regional Entity has grown, the time tracking system has captured the amount of time MRO employees spend working in each functional area. This allows MRO to more accurately budget for future periods. MRO acknowledges that the expectations and requirements of MRO and the other Regional Entities will likely continue to evolve over the next few years, but MRO's budget procedures and time tracking system should continue to help MRO to produce quality budget projections.

MRO followed all NERC guidance and templates in preparing its 2008 business plan and budget. Because MRO was required to prepare and obtain board approval for the business plan and budget in mid-2007 and the reliability standards became mandatory in June 2007, MRO still had only a partial year of experience at the time of the 2008 budget preparation. The 2008 budget development process was improved because (a) MRO, NERC, and the other Regional Entities had the benefit of FERC orders on the 2007 budgets; and (b) NERC, MRO, and the other Regional Entities met to discuss and gain general consensus on the budget requirements, given the short history of the Regional Entity organizations.

MRO makes it a priority to diligently and effectively communicate with NERC regarding all required financial reports. MRO will continue to keep this as a priority and will continue to provide all required financial reports on or before the date due.

In 2008, MRO established a separate interest-bearing escrow account for the segregation of any fines and penalties, to ensure such monies are not commingled with operating funds.

MRO's 2009 business plan and budget improved over its previous budgets due to a significant gain in performance experience and the benefit of understanding the time required for all of its Regional Entity duties. Further, NERC and the Regional Entities spent even more time meeting and discussing the NERC templates and the procedures to be





followed by the Regional Entities in their budgeting process, which improved the consistency of the business plans and budgets.

MRO followed all NERC guidance and templates in preparing its 2009 business plan and budget and was required to obtain MRO Board approval before the final submission to NERC. In addition to process improvements made by NERC for the 2009 business plan and budget process, MRO leveraged improvements made to its time-tracking and financial operations implemented in 2008 to further improve the process for 2009. MRO has and will continue to make improvements to its financial function and it is confident that these changes will enhance future budget requests.

The MRO Board and MRO Finance and Audit Committee (FAC) play an important role in assuring cost accountability for the MRO Regional business plan and budget. MRO FAC reviews the budget requests and evaluates for reasonableness and cost efficiency. MRO staff employed a zero-based budgeting methodology. Each request for resources was evaluated and justified to ensure that resource requests were efficient and matched the departmental plan for the coming year. Once MRO staff and MRO Finance and Audit Committee had reached consensus, the Business Plan and Budget was recommended to the MRO Board of Directors for approval. For the 2009 Business Plan and Budget, the process with the MRO Finance and Audit Committee extended from mid-April 2008 through the end of May 2008. Efficiencies should be gained through experience of staff and MRO Finance and Audit Committee in developing future business plans and budget.

The MRO Board approved the 2009 Business Plan and approved a motion to include comments on the NERC 2009 Business Plan and Budget. The MRO Board is concerned with preventing future sharp increases in the NERC and Regional Entity budget by proactively reducing potential duplications and “scope creep.” The NERC Finance and Audit Committee has also asked NERC and the Regional finance managers to review the idea of joining NERC and the regions in creating a larger buying group which should be able to command more favorable purchasing terms. There have been some informal discussions to gauge interest and expect more formal actions later this year.

MRO staff and the MRO Finance and Audit Committee compare the organization’s statement of activities on a year to date basis each quarter against plan, and explain material variances and emerging trends which may have a material impact on the financials. MRO routinely forecasts expenses for the balance of the fiscal year and performs a monthly closing of its accounts; this ensures that MRO maintains fiscal discipline and vigilance in its adherence to the business plan and budget while performing its responsibilities under the delegation agreement. For 2008, MRO audited actual financials were within 1% of budget, total actual costs and budgeted costs were \$5,325,525 and \$5,331,488, respectively, resulting in an underage of \$5,963.

- 2. State Regional Entity’s assessment of its own effectiveness in developing its business plans and budgets and in the submission of its business plans and budgets in a consistent manner with NERC and the other Regional Entities.**





MRO's effectiveness in developing and submitting business plans and budgets in a consistent manner with NERC and the other Regional Entities has steadily improved with each filing. For all of its submitted business plans and budgets, MRO has followed NERC guidance and templates, attended all scheduled budgeting meetings with NERC and the other Regional Entities, and had numerous discussions with NERC and the other Regional Entities regarding the preparation of the business plans and budgets. As NERC and Regional Entity experience has grown, NERC improved its processes and templates and hosted more discussions with the Regional Entities to try to improve the consistency of the business plans and budgets. Overall, MRO's business plan and budget was very consistent with NERC guidance and the other Regional Entities.

MRO will continue to work with the other Regional Entities to strive for even greater consistency in budgeting and in the creation of uniform metrics. The improvement in the consistency of the nine start-up entity business plans and budgets, as expectations and duties for these entities have continued to evolve over the past two years is encouraging. Due to the varying structures of the Regional Entities, there are differences in how each organization prepares its respective operating budget, however, particularly in light of the October 16, 2008 FERC Order on the 2009 business plans and budgets, the Regional Entities will continue to discuss and harmonize any remaining differences with NERC and each other.

**3. State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.**

- MRO suggests that NERC and the Regional Entities use generally accepted accounting principles to increase the level of consistency in the business plans and budgets. Although NERC has required the "cash basis" for reporting its quarterly financials, rather than GAPP, MRO believes that this potentially can mislead the readers of the financials as many would expect the financials to be in accordance with GAAP. Following GAAP and accrual-based accounting would require NERC and each Regional Entity to prepare an operating budget and a separate capital expenditures budget.
- MRO suggests that NERC and the Regional Entities standardize a chart of accounts. Towards that end, MRO adopted the NERC chart of accounts in the last quarter of 2008. MRO further suggests that NERC and the Regional Entities develop and implement a standardized definition and allocation of indirect costs and costing system (e.g. job costing) to track costs for each functional area under Section 215.
- MRO suggests that NERC and the Regional Entities adopt conservative procedures as it relates to accounting and financial management. Although NERC did not require all Regional Entities to establish interest bearing escrow or escrow-like accounts for the collection of financial penalties, MRO believes that these funds should be completely segregated from operating cash until such time as the rules permit them to be used in operations and until any appeals proceedings have been completed. MRO does not believe the creation of such an account is burdensome and, quite the contrary, MRO believes that this makes it much easier to account for these funds and is much more transparent and consistent with the public trust aspect of MRO's responsibilities.
- MRO plans to further enhance its existing time-tracking system with additional details to better track labor and expenses to statutory functions and Registered Entities. Since





well over half of MRO's costs are labor-related, such an enhanced system would be a useful management tool.

- MRO strongly encourages NERC and the Regional Entities to establish annual budget meetings to assure that there is a proper level of delineation of costs between NERC and the Regional Entities. For example, in certain areas, more centralization would occur where common functions can be shared or pooled to be more efficient. Also, a more intimate understanding of costs between NERC and the Regional Entities will prevent unnecessary duplications of costs and efforts.



**ATTACHMENT 4C**

**NORTHEAST POWER COORDINATING COUNCIL, INC.**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



NORTHEAST POWER COORDINATING COUNCIL, INC.  
1040 AVE OF THE AMERICAS, NEW YORK, NY 10018 TELEPHONE (212) 840-1070 FAX (212) 302-2782

## **NPCC PERFORMANCE ASSESSMENT Of Activities, Achievements, and Effectiveness in Implementing Delegated Responsibilities**

*The Commission's regulations at 18 C.F.R. §39.3(c) require NERC to "submit an assessment of its performance three years from the date of certification by the Commission, and every five years thereafter." The initial performance assessment report is due to be filed with the Commission by July 20, 2009.*

*Consistent with the FERC regulations and the guidance in FERC's order as quoted above, the principal focus of the Regional Entity's document is on the Reliability Standards Development, and Organization Registration and Compliance Monitoring and Enforcement (OC/CMEP) programs. This performance assessment also includes a less extensive discussion of NPCC's activities in the other four statutory program areas.*

### **INTRODUCTION**

Northeast Power Coordinating Council, Inc. (NPCC) is a New York State not-for-profit membership corporation. The purpose of NPCC is to promote and enhance the reliable and efficient operation of the international, interconnected bulk power system in Northeastern North America through (i) the development of regional reliability standards and compliance assessment and enforcement of continent-wide and regional reliability standards, coordination of system planning, design and operations, and assessment of reliability, (collectively, "regional entity activities"), and (ii) the establishment of regionally-specific criteria, and monitoring and enforcement of compliance with such criteria (collectively, "criteria services activities"). NPCC provides the functions and services for Northeastern North America of a cross-border regional entity through a regional entity division, as well as regionally-specific criteria services for Northeastern North America through a criteria services division.

### **INITIAL SELF-ASSESSMENT AND STAKEHOLDER SURVEY**

On December 29, 2008, NPCC submitted its initial self-assessment to NERC to be posted on the NERC website for industry review. On January 14, 2009 NERC distributed a

survey form to facilitate stakeholders and other interested parties in providing focused input into the performance assessments of NERC and the Regional Entities. NPCC has reviewed the results of that survey and incorporated suggested revisions and enhancements into the future improvement sections of this assessment.

## **Reliability Standards Development**

### **I. *Reliability Standards Development***

- A. *Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.*

As background, NPCC has had a set of regionally-specific reliability criteria in place for over 43 years to assure the reliability of the Bulk Power System in the international interconnected Northeast. These criteria encompass key aspects of the planning, design and operation of the bulk power system and represent more-stringent and more specific reliability requirements than the NERC Reliability Standards and not inconsistent with those standards. The Full Members of NPCC are obligated through the *NPCC Amended and Restated Bylaws* to abide by these criteria. A Regional Compliance program within the Criteria Services division of NPCC monitors and enforces compliance with these criteria with non-monetary sanctions for non-compliance.

The program to develop NPCC Regional Reliability Standards, therefore, is predicated not on an urgent reliability related need within the region, but on the schedule developed by the ERO in the most current version of the NERC three year standards development workplan. In response to the workplan NPCC has in various stages of development four Regional standards.

- The RSAR for the NPCC Disturbance Monitoring (DM), PRC-002-NPCC-01, regional standard has been drafted and accepted by the NPCC Regional Standards Committee (RSC). The NPCC Reliability Coordinating Committee (RCC) has assigned the drafting task, as outlined in the NPCC Regional Standards Development Procedure, to the Task Force on System Protection (TFSP). The RSAR was also sent to NERC and posted on the Regional Standards Development page. NPCC standards staff will be participating with TFSP during the development of the Regional Standard. A second draft of the standard has been developed and is currently posted in the NPCC open process webpage until July 15, 2009. The Drafting Team is currently reviewing the VSLs and VRFs of the standard with a third and final open process posting expected in the third quarter of 2009. The standard is being coordinated with the continent wide DM standard currently being developed by the ERO.
- The RSAR for the NPCC Underfrequency Load Shedding (UFLS) Program, PRC-006-NPCC-01, regional standard has been drafted and accepted by RSC. The RCC has assigned the drafting task, to the Task Force on System Studies (TFSS). The RSAR was also sent to NERC and posted on the Regional Standards Development page. NPCC standards

staff has been participating with TFSS during the development of this Regional Standard. The standard will be posted in the NPCC open process in July 2009. The standard is being coordinated with the continent wide UFLS standard currently being developed by the ERO.

- The RSAR for the NPCC Special Protection System (SPS), PRC-012-NPCC-01, regional standard has been drafted and accepted by the RSC. The RCC has assigned the drafting task to the TFSP. The RSAR was also sent to NERC and posted on the Regional Standards Development page. NPCC standards staff will be participating with TFSP during the development of the Regional Standard and a technical whitepaper being developed by the TFCP will be utilized in the development of this standard.
- The RSAR for the NPCC Classification of BPS Elements, BPS-501-NPCC-01, regional standard has been drafted and accepted by the RSC. The RCC has assigned the drafting task to TFSS. The RSAR was also sent to NERC and posted on the Regional Standards Development page. NPCC standards staff will be participating with TFSS during the development of the Regional Standard.

NPCC standards staff has also participated in NERC Reliability Standards Workshops to present regional efforts and familiarize the participants with the activities NPCC is engaged in as well as how to participate in the NPCC regional standard development process. NPCC has also held regional workshops and promulgated regional standard development activities and opportunities for stakeholder participation in those forums. In addition, NPCC has participated in a small entity workshop held by an entity representing those entities in an effort to reach out to those who may lack the resources of larger organizations.

Since January of 2007, NPCC has improved operations within the standards area by increasing staff from one Full Time Equivalent (FTE) to 3 FTEs (including contractors) to deal with the increase in workload. The NPCC website was enhanced to facilitate and track standards development, provide a medium for online commenting and immediate verification of those comments, online voting and other features to ensure consistency and adherence to the applicable statutory requirements and ERO required common attributes noted in Exhibit C of the NPCC Regional Delegation Agreement.

Future plans in the NPCC standards program area for continual improvement will include, but not be limited to the following:

- Further enhancements to the website in the area of transparency, ease of use and to improve documentation
- Continued participation and commitment to ensuring consistency with the other Regional Entities
- Close interaction with FERC and Canadian Provincial Regulators and/or Governmental authorities during the Regional Standards development to ensure all regulatory input is considered



- B. *Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.*

On October 23, 2007 the NERC BOT approved the NPCC Regional Reliability Standards Development Procedure and subsequently on March 21, 2008 the FERC approved the procedure without condition. It was noted in the FERC Order that the commission considers the procedure to be a “rule” and as such the NPCC may not deviate from what is contained therein without re-filing and seeking approval for any such change. NPCC has therefore adhered to the filed and approved procedure and furthermore incorporated generic language in the filed and approved procedure to mitigate recursive filings for changing it. This language allows NPCC to utilize the most current NERC template for standard development and also provides NPCC with the flexibility to utilize the latest protocols regarding Violation Severity Levels and Violation Risk Factors for compliance related matters without the need for re-filing.

The standards portion of the NPCC website was developed specifically to follow NERC’s website format to provide a familiarity to users and also to provide transparency of process and procedure. NPCC will continue to enhance its website to address stakeholder recommendations as they arise and provide uniformity with other Regional Entities as necessary.

NPCC’s mandate as a Regional Entity requires balancing stakeholder interests in much the same way as the ERO. NPCC utilizes segments of stakeholders in a weighted sector voting process that is outlined in the NERC and FERC approved *NPCC Amended and Restated Bylaws* also included in the NPCC Regional Delegation Agreement. NPCC also has a balanced stakeholder RSC whose purpose is to oversee and manage the Regional Reliability Standards Development Procedure and all its associated processes. NPCC utilizes an Open Process commenting process that is available online and allows any user, irrespective of membership in NPCC, to input comments online and immediately verify that they are recorded and viewable. The procedure clearly outlines the steps of development of the regional standards.

NPCC, from its inception, has always had a policy of openness, especially in the area of providing information and allowing comments on Criteria, Guidelines, Procedures, and Directories. That policy extends to the Regional Entity standards area.

Also, NPCC in 2008 began a multiyear project for the development of Reliability Requirements Directories. The main purpose driving the development of these directories is to satisfy NPCC’s obligation to demonstrate that NPCC regional criteria are consistent with the NERC Reliability Standards. The directories are arranged by NPCC criteria “topic” and take the associated mandatory NERC standards along with any NPCC regional standard and provide a consistent comprehensive set of reliability requirements for the Northeast.

The Reliability Requirements Directory document structure accomplishes a number of objectives, including:

- Consolidating all the NPCC guidelines and procedure documents related to the parent criteria document’s topic

- Simplifying searching for pertinent information regarding criteria application into one document, effectively reducing the number of NPCC documents
- Demonstrating consistency with NERC Reliability Standards
- Combining the NERC and any applicable Regional Reliability Standard Requirements into the document.
- Identifying the more stringent NPCC Regional Criteria requirements, while removing any duplicative language that may exist between the NPCC criteria and NERC standards
- Incorporating the latest Functional Model language and identifying the responsible functional entity that is expected to comply, while concurrently retiring the use of the word “Area” (old term used to identify NPCC Control Areas prior to the Functional Model unbundling and identification of individual functions)
- Easing future compliance determinations
- Clarifying and simplifying cross-reference “mapping” between NPCC documentation and NERC Standards Requirements
- Providing opportunities for NPCC to assess need to develop regional standards beyond those specified as part of the NPCC or NERC work plans

The NPCC Directory concepts have been endorsed by the NPCC Board of Directors and NPCC is effectively accomplishing its ERO directives with respect to the criteria consistency issue. NPCC will also be retiring documents that are absorbed and incorporated into the new NPCC Directories, and updating the website to ensure that it includes the latest information along with clarification documentation and archived versions of old documents, should they be required.

NPCC has the manpower resources, tools and procedures in place to effectively and efficiently accomplish its delegated authority to develop Regional Reliability Standards both at the direction of NERC as the ERO, and also in response to other regional reliability related needs.

- C. State Regional Entity’s assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

NPCC is in the initial steps of its regional standards development. NPCC has initiated four Regional standards and these standards are being developed in a coordinated manner and predicated on the schedules in the NERC three year standards development workplan and consistent with the NPCC business plan and goals. NPCC is proceeding at a pace necessary to accomplish the objectives of both the ERO and FERC, and to support coordinated standards and regional consistency. NPCC believes that in order for consistency to be achievable there needs to be both coordination between the regions and guidance from NERC on the characteristics of the reliability requirements to be included in the regional standards.

In the area of NPCC's participation in the NERC RS procedure, NPCC has conducted active technical reviews of all posted NERC standards, actively commented and recommended approvals when the draft standards are deemed by the balanced stakeholder RSC to provide an adequate level of reliability for the international, interconnected Northeast. In addition NPCC has representation on all NERC drafting teams and has responded to all requests from the ERO for regional representation, providing this representation with either NPCC member personnel or Regional Entity staff.

*D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development*

During the development of the NPCC "Regional Reliability Standards Development Procedure", NPCC staff reviewed the NERC process in great detail and at that time noted a number of enhancements that could be incorporated into NPCC's procedure. NPCC incorporated these into the NERC BOT approved and FERC filed and approved procedure and has built efficiencies into the process which, because NPCC is dealing with a smaller cross section of the continent-wide number of stakeholders, could be difficult for the ERO to implement. NPCC's Reliability Assessment and Performance Analysis program area has standing Task Forces and Working Groups of technical experts available to supply their expertise in drafting regional standards and reviewing NERC reliability standards. Because of the inclusive nature of its membership, NPCC doesn't have the need to develop separate "ballot pools" for the individual ballots for Regional standards. NPCC also has had an Open Process for commenting that is online which the ERO has used as a model.

On an ongoing basis the most vital resource that will be constrained is that of industry volunteer expertise and continued availability to participate. NPCC standards staff has taken the step to provide the Regional Standard Drafting Team with a first draft of a standard which includes VSLs and VRFs in an attempt to mitigate the time required for drafting. With the open postings in place, NPCC believes that this increases efficiency and allows productivity for the drafting team to begin from the onset and it will result in less meetings and time for the standard to be completed.

NPCC will further its efforts to ensure proper stakeholder notifications for all regional standards activities are publicized through expanded email lists and postings at NERC. In addition all critical NPCC standards development activities such as soliciting for drafting teams, postings of standards, and balloting of standards will be shared with all other Regional Entities and NERC. FERC and applicable Canadian Provincial governmental and/or regulatory authorities have also been invited to participate in regional drafting efforts.

In the future, as an enhancement, NPCC will also have a liaison for compliance provided to the regional drafting team to immediately address and clarify compliance related issues and concerns. NPCC compliance staff will serve in this role.

Further opportunities exist to coordinate with other Regional Entities on "look and feel" of website design and layout for standards related activities. NPCC participates with the other Regional Entities in the NERC Regional Reliability Standards Working Group

("RRSWG") which is reviewing opportunities for consistency. This will be of increasing importance once all Regional Entities have developing standards in process and stakeholders with "interest" in multiple Regional Entities have to review multiple websites in differing formats. NPCC standards staff is also participating actively in the Functional Model Working Group and the development of Version 5 of the NERC FM. NPCC has also actively participated in developing the latest revisions to the NERC Rules of Procedure and NERC Reliability Standards Development Procedure Manual currently assigned to the NERC Standards Committee Process Subcommittee. NPCC standards staff will continue to work with the ERO to continually refine and increase efficiency in the NERC standards development area

NPCC standards program area is also participating in the regional standards development activities of MRO, SERC and RFC to ensure consistency, identify any potential adverse reliability related impacts of neighboring regional standards and also to provide coordination. This cross participation will also identify potential additional standards that may hold value to the Northeast which other Regional Entities may be developing.

## **Organization Registration and Compliance Monitoring and Enforcement Program**

### ***II. Organization Registration and Compliance Monitoring and Enforcement Program***

A. *Describe Regional Entity's activities and accomplishments in OC/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.*

- *This description should emphasize quantitative information, e.g.: Staffing; numbers of registered entities registered; numbers of workshops, seminars, training and education sessions, etc. conducted; numbers of compliance audits conducted and reports processed; numbers of other compliance processes conducted and processed, e.g., spot-checks, self-certifications, etc.; numbers of notices of violation issued and processed; numbers of mitigation plans processed.*

### **Registration**

The initial 2007 NPCC Compliance Registry was established based on information received in response to Entity Registration Verification Surveys distributed in January, 2007. This survey, developed by NPCC Compliance Staff, requested that each entity that had previously registered as one of the Functional Model entity types, verify that previous registration and provide the most current contact and facility information. In addition NPCC reached out to the New York ISO and ISO New England within the U.S. portion of the region, to identify additional entities that might need to be registered from a reliability perspective that had not registered previously. During 2007 NPCC continued to update the Compliance Registry on a monthly basis and furnished each updated registry to NERC.

To enhance its focus on accurate registration, NPCC in June, 2008 hired a Manager of Compliance Process Development, primarily to oversee the registration process. In August 2008 NPCC issued its second Entity Asset Verification and Registration Survey. This survey will provide updated information to the current registry and will also provide information related to assets owned by each registered entity. The data is being reviewed and the Compliance Registry is being updated on a regular basis to incorporate the results of the survey and any additional changes that have been identified.

In 2009, NPCC has been assessing the registration survey asset information and sending out confirmation letters or registration revision notification letters to the registered entities. NPCC also issued a Compliance Guidance Statement (NPCC-CGS-002, May 4, 2009) on defining generation materiality within the NPCC region. This has identified new entities that will be registered as generation owners and operators within the NPCC footprint. The NPCC registration survey has also been reviewed as a model for the other Regional Entities on collecting bulk electric system asset information from the registered entities.

As of May 31, 2009 the NPCC Compliance Registry contains 267 entities. From a Functional Model perspective, there are some 533 auditable functional components.

### **CMEP Implementation**

NPCC implemented the Compliance Data Administration Application (CDAA) in April 2007. This web-based application is used by registered entities for compliance submittals. The CDAA database is also used by NPCC compliance Staff to review and analyze compliance submittals, and track the progress of mitigation plans. In conjunction with the introduction of the CDAA NPCC conducted 12 in-house training sessions for users of CDAA.

NPCC continues to enhance the CDAA and is a party to the Consortium Users Group (CUG) agreement with five other Regional Entities. This agreement allows for the shared development of the CDAA among the six regional signees. The Regional Entities are currently developing a Compliance Issues Tracking module that will integrate into the NPCC CDAA and will be used to track all aspects of compliance submittals. Among other enhancements introduced by NPCC is the use of electronic signature to expedite the submittal certification process. The CDAA has proved to be a valuable tool in the conduct of the CMEP. Another valuable tool is the NPCC Compliance website. The website was totally redesigned and introduced during the second quarter of 2009. The enhanced website is more user-friendly and provides easier access to data and information related to the Compliance Program.

In July, 2007 the NPCC Board of Directors approved the initial scope of the NPCC Compliance Committee and more recently approved a revised NPCC Compliance Committee scope in February, 2009. The latest revision to the scope reflects changes to the composition and voting mechanism of the Hearing Body, in response to FERC Order Docket No. RR06-1-016. This balanced stakeholder committee reports directly to the NPCC Board and is responsible for providing policy input into the conduct of the CMEP and having a predefined number of its members serve as the Hearing body for any

disputes that may be raised by a registered entity regarding a finding of non-compliance and/or the issuance of a penalty or sanction.

NPCC processed over 500 pre-June 18<sup>th</sup>, 2007 self-reported violations, in response to a pre- CMEP implementation notice from NERC. After review NPCC identified 45 violations and dismissed all other self-reports. However NPCC requested that all self-reported violations have a mitigation plan included with their submittal. All mitigation plans were reviewed and tracked to completion.

NPCC implemented, on June 18<sup>th</sup>, 2007, FERC approved uniform Compliance and Monitoring Program (CMEP). This program is used by NPCC to monitor, assess and enforce compliance to NERC Reliability Standards, post June 18<sup>th</sup>, 2007.

NPCC reviewed, in August 2007, the CIP Implementation survey submitted by all applicable entities. NPCC reviewed all self- certifications submitted by responsible entities in August, 2008. All entities, in NPCC, who were required to be compliant with CIP Standards as of July 1, 2008, were found to be in full compliance.

From January 1, 2008 through December 31, 2008 NPCC processed for each requirement of each monitored standard some 3,529 self-certifications through its CDAA. From January 1, 2009 through May 31, 2009 NPCC has processed 3,296 self-certifications through its CDAA.

NPCC, through its participation on the NERC Regional Compliance Implementation Group (RCIG), provides feedback on various activities related to CMEP implementation. The RCIG has created a number of Working Groups, to be used as forums for the Regional Entities to share their experiences and develop consensus documents or Compliance Guidance Documents (CGD) on different aspects of the CMEP. To date the following Working Groups have been established: the Compliance Monitoring Processes Working Group (CMPWG); the Enforcement, Sanctions and Mitigation Working Group (ESMWG); the Registration Working Group (RWG); the Compliance Information Management Group (CIMG); and the Compliance CIP Management Group (CCMG).

Each of these working groups has representatives from all of the Regional Entities. Compliance issues that achieve consensus and are developed into CGDs are presented to the RCIG for approval and posted to a common Regional Entity supported website (regionalentities.com) so the Registered Entities may use these documents and other information on the website to better understand the requirements of the CMEP. Among some of the issues discussed by the RCIG and the CMPWG include quality of evidence required to meet the requirements of particular Reliability Standards being audited; Reliability Standard Audit Worksheets (RSAWs) clarification and the development of documented compliance applications related to specific Reliability Standards to help improve clarity of Reliability Standards requirements. An example of this is the recent PRC-005 Assessment that was done by the RCIG which looked at previous instances of non-compliance to the Standard, identified key reasons for the non-compliance and suggested process enhancements. The paper was presented to the NERC BOTCC and posted to the above mentioned website.

### **Compliance Audit Program**

NPCC implemented its Compliance Audit Program in June, 2007. The program consists of On-site Compliance Audits, Off-site Compliance Audits, Spot Checks, Compliance Violation Investigations (CVI) and Compliance Inquiry (CIQ). Each On-site Compliance Audit is led by a representative of the NPCC Compliance Staff that has completed the NERC Lead Compliance Auditor Training Program. In addition, the NPCC Compliance Audit Team consists of a number of independent contract auditors, who, subsequent to applicable background checks and execution of code of conduct and conflict of interest statements, work exclusively for NPCC and who all have completed the appropriate NERC Compliance Auditor Training Program. The contract auditors assist the lead auditor in conducting the compliance audit. In addition, NERC Staff, FERC Staff, and as appropriate Canadian Provincial Regulatory representatives have participated on several compliance audits in an observer role. There are no volunteers used on any of the NPCC Compliance Audits.

The Off-site Compliance Audits and Spot Checks are conducted by both NPCC Compliance Staff and/or contract auditors.

The Compliance Audit Schedule, for the next year, is established by September 1 of the prior year and identifies the audited entity, the auditable functional components, and the minimum Reliability Standards to be audited and the date the audit is to be conducted. Registered Entities are given at minimum 60 days notice of an upcoming Off-site Compliance Audit and a minimum of 90 days notice of an upcoming On-site Compliance Audit and are supplied with a comprehensive pre-Audit package of material that includes the appropriate RSAWs for the Reliability Standards included in the audit. This pre-Audit package of material is identical for both the On-site and Off-site Audits.

Each Compliance Audit conducted is accompanied by an audit report that is drafted by the audit team and reviewed by the audited entity. Once finalized, the report is sent to NERC for posting on the NERC website. In addition NPCC posts a public report on its public website.

The schedule for the Spot Check Program is generated for internal NPCC Compliance Staff use only and entities to be spot checked are notified, as per the CMEP, 20 days in advance and requested to supply the necessary information to NPCC for review.

NPCC CVIs are conducted under the NPCC Compliance Audit Program. A CVI is conducted as the result of a thorough review of a system event that determines that there is the possibility of a violation of one or more Reliability Standards. CVIs involve use of NPCC Compliance Staff and may also involve NERC, FERC and Canadian regulatory representatives. Upon completion of the CVI, any identified possible non-compliance issues are handed to the NPCC Compliance Staff Enforcement personnel for further review and determination.

In 2007, NPCC conducted, 14 On-site audits, 20 Off-site Audits and 25 Spot Checks. A report, for each Compliance Audit, was posted to the NERC and NPCC websites.

In 2008 NPCC conducted and completed as scheduled 32 On-Site Compliance Audits; 84 Off-Site Audits and all 238 of its Spot Checks.

In 2009, NPCC is scheduled to conduct 120 off-site audits and 19 on-site audits. This schedule is subject to change based on changes in registration or other factors. Thirteen (13) on-site audits and twenty-five (25) off-site audits have been completed to date. Approximately 200 spot checks will be conducted in 2009.

Through May 31, 2009 NPCC has conducted three CVIs and one Compliance Inquiry (CIQ).

### **Compliance Enforcement**

NPCC Compliance Enforcement is charged with: the identification of instances of non-compliance, the approval and tracking of mitigation plans associated with identified instances of non-compliance, determination of appropriate penalties and sanctions, conduct of settlement negotiations, representing NPCC during the Hearing process and issuing Remedial Action Directives. It has established a notification process, consistent with the NERC CMEP, which includes the issuance of Initial Notices of Alleged Violations (INOAV), Notices of Alleged Violations (NOAV) and Notices of Confirmed Violations (NOCV).

NPCC has identified 72 alleged violations of NERC Standards during the period from June 18<sup>th</sup>, 2007 through May 31, 2009. Of the 72 violations identified: Nine violations, that had preliminary Notices of Alleged Violation (INOAV) issued, were dismissed as a result of further investigation that determined that the entities involved were not in violation of the Reliability Standard for which they had submitted a self-certification; 12 violations have settlement agreements signed; 35 violations are involved in on-going settlement discussions (see below for further details) and one NOAV has been issued. Four NOAV have been accepted and Notices of Confirmed Violation (NOCV) have been submitted to NERC. One NOCV has been issued and a Notice of Penalty (NOP) is to be filed by NERC with FERC; and 12 NOP have been issued by FERC.

Of the 63 violations identified: 34 are associated with CIP-001-1; 17 are associated with PRC-005-1, 7 are associated with FAC-003-1 and 5 are associated with VAR-002-1.

Of the 63 violations identified, 22 were discovered as a result of a Compliance Audit; 13 were discovered through Self-Certification; 23 were discovered through Self-Reporting, four were discovered through Periodic Data Submittals and one was discovered through an investigation.

The 12 NOP that have been issued all have mitigation plans that have been accepted and completed. The one NOCV that has been issued and is pending a NOP to be filed by NERC with FERC has an accepted mitigation plan that has been completed. The four NOAV that have been accepted have been submitted to NERC as NOCV's and all have mitigation plans that have been accepted and completed.

Currently there are 33 violations that are being addressed in settlement discussions. Twelve violations involving four registered entities have Stipulation and Consent Agreements signed and have been submitted to NERC.



On May 29, 2009 NPCC issued a Remedial Action Directive, to an entity, for violations related to FAC-003-1, Transmission Vegetation Management Program.

### **NPCC Summary of Enforcement Activities**

Summary of the number of violations assessed and processed in 2007 through May 31 2009.

<b>Violation Timeframe</b>	<b>Number of Possible Violations Reviewed</b>	<b>Number of Violations With Sufficient Basis</b>	<b>Notices of Alleged Violation Filed (#Violations)</b>	<b>Notices of Confirmed Violation Filed. (#Violations)</b>	<b>Number of Violations Complete</b>
2007 Pre-June 18	537	45	N/A	N/A	45
2007 Post-June 18 through December 31	22	14	13	13	13
2008	39	39	5	5	0
2009 YTD	11	11			

Summary of the number of mitigation plans processed through May 31 2009.

<b>Mitigation Plan Timeframe</b>	<b>Number of Violations with Mitigation Plans Submitted</b>	<b>Number of Violations with Accepted and Approved Mitigation Plans</b>	<b>Number of Violations with Mitigation Plans Certified as Complete</b>	<b>Number of Violations with Mitigation Plans Verified as Complete</b>
2007 Pre-June 18	45	45	45	45
Post-June 18, 2007 TD	9	9	9	9
2008	44	23	22	22
2009 YTD	5	7	7	7

#### **CMEP Implementation in Canadian Provinces in NPCC**

To reflect and respect Canadian Provincial laws, the implementation of the NPCC compliance program differs among each of the Canadian entities. In the Canadian provinces within NPCC (Ontario, Québec, New Brunswick and Nova Scotia), compliance monitoring, assessment and enforcement is done based on the terms contained in individual Memoranda of Understanding (MOU) and/or governmental

agreements between each province, NERC and NPCC. These provincial agreements are unique to a particular province and create unique compliance program implementation models.

NPCC has signed MOUs with Ontario, New Brunswick, the Régie in Québec and is reviewing a draft of an MOU between NPCC, the Utility Review Board of Nova Scotia, NSPI and NERC.

In 2008, NPCC conducted an assessment of the New Brunswick System Operator (“NBSO”) Compliance Program as a precursor for the development of the MOU between NPCC, NBSO and NERC. This assessment assured all parties that a comprehensive compliance program was in place in New Brunswick that would be able to support the terms and conditions outlined in the MOU. NPCC also conducted, in 2008 a review of the IESO Compliance Program again to assure all parties that there is a comprehensive compliance program in place to meet all the terms and conditions of the MOU between IESO, NERC and NPCC.

### **Processes and Procedures**

In 2008 the NPCC Compliance Committee (“CC”) created a self assessment process to evaluate the NPCC Compliance Staff’s implementation of the CMEP. A team, made up of stakeholders, conducted three assessments of NPCC Compliance Staff’s implementation of the Registration process, Self-certification process and the On-Site Audit Programs. In 2009 the CC will assess the NPCC Staff’s implementation of the Off-Site Compliance Program, the process used for reviewing, approving and tracking the progress of mitigation plans related to violations of Reliability Standards; and, the process and procedures used for implementing enforcement actions related to violations of Reliability Standards.

During 2008, NPCC developed five internal Compliance Procedure (CP) Documents to aid in the implementation of the NPCC CMEP. CP-01, entitled *Implementation of NPCC Compliance Monitoring and Enforcement Program*, describes in detail the overall implementation of the NPCC CMEP and identifies the sub processes and responsible entities for carrying out the various aspects of the CMEP. CP-02, entitled, *Procedure for On-Site Audits*, describes how NPCC conducts its On-Site Audits. CP-03, entitled, *Procedure for Off-Site Audits*, describes how NPCC conducts its Off-Site audits. CP-05, entitled, *Procedure for Spot Checks*, describes in detail how NPCC does its Spot Checks. CP-06, entitled, *Procedure for Self-Certification and Self-Reporting*, describes how NPCC implements Self- Certification and Self – Reporting.

Additional CP documents are being developed to cover other aspects of the CMEP such as Violation Notification Process, Hearing Process and Settlements. Each CP document is developed consistent with the NERC CMEP and Rules of Procedure. All CP documents are approved by the NPCC Compliance Committee and are available on the NPCC website. NPCC is also planning to create a set of internal staff Compliance Instructions (CI) to support each of the CP documents developed.

### **Compliance Workshops**

NPCC has conducted two compliance workshops in each of the past two years. In 2007 NPCC conducted a workshop on April 25<sup>th</sup> that focused on introducing the CMEP and

how it was to be implemented in a post June 18<sup>th</sup> environment. This workshop also introduced the concept of using on-line tools to assist registered entities in the implementation of the CMEP. On November 14 and 15<sup>th</sup>, 2007 NPCC held its second workshop of the year. This work shop focused on the early observations of and lessons learned from the implementation of the CMEP post June 18<sup>th</sup>, 2007. The workshop also included a User's Group Forum on use of CDAA, NPCC's on-line compliance application and a mock hearing, conducted by an NPCC Hearing Officer, which demonstrated the NPCC Hearing process.

In 2008 NPCC held a compliance workshop on May 12-13 and focused on the integration of the Critical Infrastructure Protection (CIP) Standards into the CMEP and once again presented lessons learned from implementation of the CMEP in the areas of Registration, Compliance Audits and Enforcement. The second 2008 compliance workshop was held on November 12-13, 2008 and introduced a new format that focused on registered entity input and featured stakeholder led break out sessions that identified key concerns regarding CMEP implementation. These concerns were then presented to the NPCC Compliance Staff for discussion and the development of an action plan to address these issues.

At its May, 2009 Compliance Workshop, NPCC continued its focus on stakeholder concerns by maintaining and enhancing the workshop format adopted in November 2008, that emphasized stakeholder identification of key issues. The May, 2009 workshop was expanded in length to allow for further discussions of these stakeholder identified issues and was the most attended workshop to date.

### **Staffing**

In January 2007 the NPCC Compliance Staff consisted of three full time positions – Assistant Vice President - Compliance, Manager of Compliance and a Senior Compliance Engineer. During the first half of 2007 the Compliance Program Staff was restructured and additional personnel were hired to fill two newly created positions – Manager – Compliance Audit Program and Manager – Compliance Enforcement. In addition the Manager - Compliance title was changed to Manager – Compliance Program Implementation and more clearly defined roles and responsibilities were developed for each of the three manager positions. To support the managers two Associate Compliance Engineers were also hired during 2007 and a number of contract Compliance Auditors were retained. In 2008 the NPCC Compliance Staff added a Manager-Compliance Process Development and a Senior Compliance Engineer. In 2009, to date, a Compliance Analyst and Compliance Specialist, with expertise in physical security, have been added to the NPCC Compliance Staff.

The Compliance Specialist, added to existing CIP qualified Compliance Staff members and contract auditors with CIP expertise, provides NPCC with a thorough and highly qualified team to conduct the required CIP Compliance Audits which began in April, 2009.

- B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its Region.*

Through its Regional Delegation Agreement with NERC, NPCC has been charged with enforcing Registered Entities' compliance with NERC Reliability Standards. Historically, NPCC included in its membership agreements the requirement to adhere to its regionally-specific Criteria in order to assure bulk power system reliability. NPCC administered a "voluntary compliance program" for many years using its membership approved Criteria as its set of reliability requirements and has monitored, assessed and enforced adherence to these Criteria through non-monetary sanctions. Implementing the CMEP is the latest addition to this culture of compliance.

Conducting a comprehensive and rigorous CMEP focused on enhancing reliability, assures that the registered entities within the region understand the Reliability Standards, the consequences associated with failure to meet these standards and most importantly that adherence to the reliability standards translates directly to a more reliable bulk power system. The descriptions provided in "A" above demonstrate many of the processes and procedures that have been implemented since 2007 to accomplish the effective implementation of the CMEP.

*C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards.*

NPCC has adopted and implemented the NERC uniform CMEP, which provides fair and impartial procedures for enforcing reliability standards. NPCC Compliance Staff presents program related implementation procedures to its Compliance Committee for approval. This committee is a balanced stakeholder committee made up of sector representation that is consistent with the make up of the stakeholder NPCC Board of Directors. By involving members from all sectors in the process NPCC is assured that decisions made by the CC are fair and impartial.

*D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed*

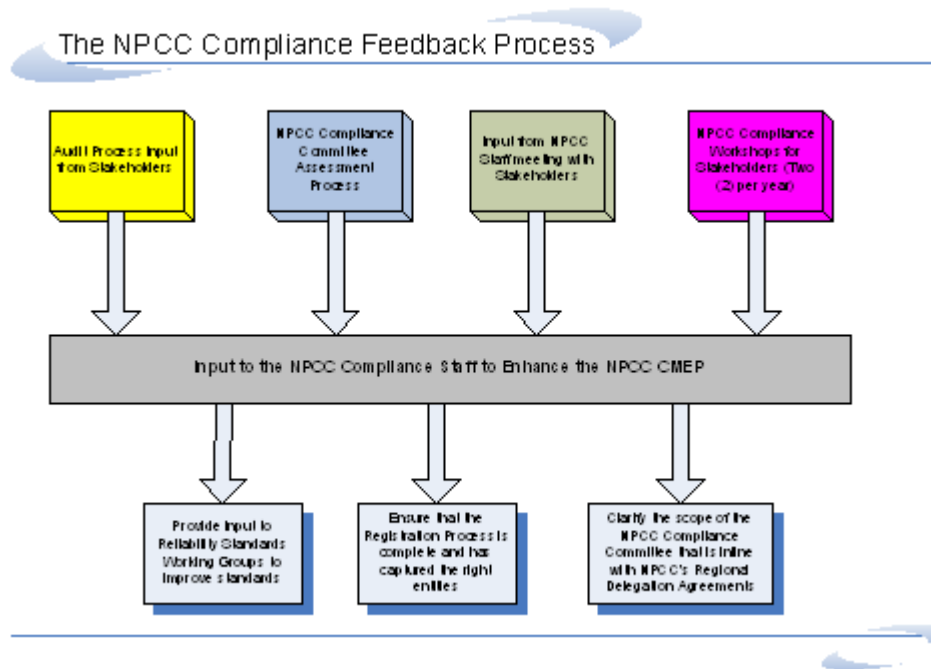
NPCC has implemented a self-assessment process conducted under the stakeholder Compliance Committee. These assessments evaluate the implementation of various parts of the CMEP and make recommendations for improvement. These recommendations are then reviewed by the NPCC Compliance Staff and implemented. The Compliance Committee is charged with tracking the progress on the implementation of the CC recommendations.

This self assessment process has helped enhance the effectiveness of the implementation of the CMEP, especially from the beginning of the program in June 2007. In addition, there are many other reasons for the improvement, including: the greater knowledge gained by actually implementing the program, the enhancement to the tools used to implement the CMEP-especially the CDAA, the use of direct feedback from the registered entities and the sharing of their experiences through many means including the compliance workshops, direct contact via the phone or email and via direct face to face meetings.

*E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.*

To improve the effectiveness of its implementation of the CMEP, NPCC conducted a survey in mid – August 2008 to re-verify the registration of entities. The results of this survey will assure that the proper entities are registered and that the data associated with these entities is as accurate as possible. NPCC continually reviews the NERC Statement on Registration Criteria and provides its input and feedback based on the experiences it has had during the conduct of its registration process. NPCC is continually striving to assure that the proper entities are registered and willingly shares its experiences with other Regional Entities.

The NPCC Compliance Committee has endorsed a feedback process shown below:



This process utilizes feedback obtained from the various “inputs” depicted above including: Audit process; Compliance Committee Assessments; direct contact with registered entities and Compliance Workshops. This input is then used, by the NPCC Compliance Staff, to: provide input to Reliability Standards Working Groups to improve standards; ensure proper registration; and, to potentially modify the scope of the NPCC Compliance Committee.

NPCC participation on various NERC groups such as the CCC, RCIG and its supporting Working Groups plays a tremendous role in improving the effectiveness of the CMEP implementation. By sharing information among the Regional Entities and coming to consensus on issues, a more consistent application of the CMEP can be achieved across all the Regional Entities. To this end NPCC is supporting the development of the Regional Entity informational website – established to furnish registered entities with consensus information related to the CMEP implementation.

In addition, NPCC is working on the development of Key Performance Indicators (KPI) related to the CMEP. The NPCC Compliance Committee approved an initial set of indicators that will include performance target goals, summaries of performance and action steps to improve compliance performance. The development of these metrics is being shared among the Regional Entities and hopefully these metrics will become a very useful tool in the implementation of the CMEP.

NPCC continues to reach out to governmental and/or regulatory authorities to assure that the most current directives from the regulatory authorities are being used during the conduct of the CMEP. As an example, the NPCC Compliance Staff has participated in FERC Enforcement and Compliance related technical conferences and workshops and have found them to be valuable in obtaining insights into the most current thinking of the FERC staff.

## **Other Program Areas**

### ***III. Other Program Areas***

#### ***A. Reliability Readiness Evaluation and Improvement Program***

The Reliability Readiness Evaluation and Improvement Program was established following the 2003 blackout as a collaborative program conducted by the Regional Entities and NERC to assesses the readiness of the operational entities to oversee the reliable operation of the bulk power system. The first such on-site evaluations were conducted during the spring of 2004. Each Reliability Coordinator within the footprint of the 2003 blackout received a Readiness Evaluation to ensure its ability to continue to conduct reliable operations going into the summer of 2004. From this initial post-blackout initiative, the Readiness Evaluation program expanded into on-site operational reviews of all operating centers, including those of Transmission Owners, with almost seventy evaluations carried out annually.

Readiness evaluations were conducted on a three-year cycle for the Reliability Coordinator, the Transmission Operator, the Transmission Owner and the Balancing Authority. The NERC Reliability Readiness Evaluation and Improvement Program was expanded to promote excellence in operations by establishing a dialogue between the review team and the entity being reviewed and by providing a forum for the exchange of ideas and the identification of opportunities for improvement and examples of excellence. The Reliability Readiness Evaluation team itself consisted of industry volunteers with the necessary technical expertise, with a member of the NERC staff and the applicable Regional Entity assuming the lead for each evaluation team. Reliability Readiness Evaluation activities were conducted on-site at the locations of the evaluated entities. The full evaluation team prepared, and concurred in the preparation of, a final report summarizing the conclusions and observations of the audit team, and, when finalized, it was made publicly available on the NERC website.

1. *Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.*

NPCC has been an active participant in the efforts of the NERC Reliability Readiness Evaluation and Improvement Program since its inception. For calendar year 2007, NPCC Staff served as the co-team leader for two Readiness Evaluations within NPCC. In addition, NPCC participated in four external Audits in 2007.

In 2008, NPCC served as the co-team leader for five Transmission Owner reviews within NPCC.

2. *State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

NPCC believes that the NERC Reliability Readiness Evaluation and Improvement Program was an effective short term tool with which to ensure operating reliability of the bulk power system following the blackout of August 14<sup>th</sup>, 2003. However, following the initial series of evaluations, its value became very limited as the compliance program better served the function. The Readiness Evaluation program also became a significant drain on industry manpower as compliance activities became more numerous, and, further, as the Readiness Evaluation program was extended to the Transmission Owner level.

With the implementation of mandatory compliance and the extensive, in-depth compliance audits which the program brought to the industry, NPCC agreed with the conclusion of NERC that the imposition of mandatory compliance had superseded the value of the Readiness Evaluation program, and, accordingly, the Readiness Evaluation program should cease at the end of 2008.

For 2009, the Business Plan and Budget of the NERC states that the Reliability Readiness Evaluation and Improvement Program will complete remaining scheduled readiness reviews and close by the end of the first quarter of 2009. Within NPCC, all Reliability Readiness Evaluation and Improvement Program evaluations were concluded by December of 2008; none extend into the first quarter of 2009.

3. *Discussion of proposed improvements to reliability readiness is not needed, since the NPCC evaluations were completed by the end of 2008 and this program is being phased out by NERC in the first quarter of 2009.*

**B. Training, Education and Operator Certification**

1. *Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.*

In NPCC, the training, education and operator certification activities are coordinated by the CO-2, System Operator Training Working Group, which is overseen by the Task Force on Coordination of Operation.

During 2007 and 2008 NPCC has provided four high-quality continuing education seminars for system operators and dispatchers in the five NPCC Balancing Authority Areas (“Areas”). The attendees at these seminars have attained Continuing Education Hours (CEHs) and material from seminars has been incorporated in Area training programs to allow for the attainment of CEHs for all system operators in those Areas. Content of those seminars has included extensive presentations on wind power additions with discussions on operations concerns with wind generators, review of system disturbances both in the NPCC Areas and for major disturbances outside of NPCC for lessons learned, industry and NPCC changes, changes in NPCC criteria and procedures and NERC standards, compliance and compliance violation investigations, new facility additions and seasonal assessment summaries. Specific learning exercises have included table top exercises on system restoration and operator communications. Quality of the exercises, presentations, topics and participation has shown on-going improvement.

During October 2008 a Coordinated Restoration Exercise was conducted by system operation and training staff among the NPCC Areas and PJM. A review of how the exercise went was conducted during the November 2008 System Operator Seminar.

Other accomplishments in the Training, Education and Operator certification program during the time since January 1, 2007 through May 31, 2009 include:

- Reviewed NPCC and NERC document changes that relate to system operation.
- Shared training sources that can be referenced to obtain on-the-job and computer-based training.
- Exchanged among NPCC Areas operator training methods, sources of new methods and techniques plus web sites with associated information.
- Compiled detailed lists of Bulk Electric System (BES) company-specific reliability-related tasks and corresponding descriptions for tasks performed by NPCC Area System Operators. This also involved verification that each System Operator has the capability to perform new or modified tasks.
- Carefully reviewed the still under development NERC PER-005, “System Personnel Training” standard content. The NPCC Area training programs have been reviewed to determine impacts that the new standard content will have and if any changes are needed to the programs.
- Reviewed NPCC Area certification training needs and whether additions to existing programs are needed.
- Simulator software was shared among Areas—This may affect training methods that provide a large number of Continuing Education hours for NPCC Area system operators.
- Reviewed 2007 and 2008 attainment for system operators in the NPCC Areas of CEHs.



2. *State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

The Training, Education and Operator certification program has increased effectiveness during the time since January 1, 2007. Areas of increased emphasis included:

- Restoration exercises and drills.
- Communication among operators and use of communications improvement drills.
- Review of NPCC and NERC document content and changes and how they may impact existing training programs.
- Consideration and use where possible of sharing of training program content and sources for new content among the NPCC Areas to improve efficiency and effectiveness.
- Exchanged among NPCC Areas operator training methods, sources of methods and techniques plus web sites with associated information.

3. *State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification.*

In 2009, NPCC is increasing the emphasis on training relating to the inter-relationship between NERC Standards, Regional Standards, Market Rules, and Business Practices. NPCC will conduct an autumn training seminar at which potential operational problems for the coming season are identified, the implementation of NPCC operations-related directories, standards, criteria and procedures are discussed, significant disturbances are reviewed for lessons to be learned and “table-top” exercises and drills and event simulations are conducted. (The scheduled Spring training seminar was cancelled due to travel restrictions in response to the pandemic.)

NPCC will also evaluate and propose new techniques and training aids as they become available and will seek ways to share training methods and sources. Considering ways to continue and enhance these activities are part of the scope of the CO-2 Working Group activities.

NPCC continues to stress coordinated, wide area system restoration exercises. In conjunction with the 2009 autumn system operator training seminar, all five NPCC Areas, together with the Midwest ISO and PJM, will participate in a wide area “August 14<sup>th</sup>” restoration simulation containing the introduction of numerous problem scenarios to be addressed in the course of the drill.

Where achievable NPCC will consolidate training among the NPCC Areas in the development of course work accredited for Continuing Education Hours. As part of this activity, internal training method and techniques will be exchanged, whenever feasible.

In addition, NPCC will identify and establish any necessary training requirements which may result from the entity certification process.

In 2009 NPCC is reviewing the NERC standard PER-005 content. In accordance with PER-005 NPCC will: 1) update the NPCC Area list of BES company-specific reliability-related tasks performed by its system operators to identify new or modified tasks for inclusion in training, 2) review design and development of learning objectives and training materials based on the task list and 3) conduct an evaluation of the training programs to verify each system operator's capabilities to perform each assigned task identified.

### ***C. Reliability Assessment and Performance Analysis Program***

NPCC coordinates operation and planning among the NPCC Balancing Authority Areas and NERC to enhance the reliability of the interconnected bulk power system, including the development of operating procedures affecting the reliability and operability of interconnected power systems. NPCC has established the Reliability Coordinating Committee (RCC) as the top technical committee to integrate the "deliverables" of several NPCC programs.

Seasonal assessments of the overall NPCC resource adequacy assessments are performed and possible actions to mitigate any potential problems are identified. NPCC reviews operations and disturbances both internal and external to the Region in order to identify any lessons to be learned and recommends any necessary follow-up actions.

If appropriate, enhancements to Regional Standards or NPCC's more stringent, regionally specific reliability requirements are also recommended. NPCC promotes and conducts both inter-Area and interregional studies to enhance reliability and operational effectiveness, and provides a forum for the discussion and coordination of operating issues within the NPCC Areas and with other Regions.

#### ***1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.***

Perhaps the most significant action in this Program Area for 2007 was the decision to move forward with the development and technical review of the NPCC Reliability Requirements Directories. The Directories consolidate the existing NPCC A, B, and C documents into a format consistent with the NERC Standards, linking the NPCC requirements to the related NERC standards. This provides a combination of measurable compliance elements from the ERO standards with the implementation specifics of the NPCC criteria.

Reliability Requirements Directory No. 7 – Special Protection Systems was reviewed and approved by the RCC in November 2007.

#### **2007 Summary**

The following reliability assessments and reviews were approved:

- ✓ The 2006 assessment of Under Frequency Load Shedding adequacy

- ✓ The 2007 summer and winter pre-seasonal assessments
- ✓ The 2007-2009 NPCC Tie Benefits Report
- ✓ 5 Interim or comprehensive Area transmission reviews
- ✓ 4 Interim resource adequacy reviews
- ✓ 5 new or amended Type 1 Special Protection Systems
- ✓ Guidelines for consistent interpretation of Critical Assets in the context of NERC's Critical Infrastructure Protection Standards, and
- ✓ The 2008-2009 work plans of the Reliability Coordinating Committee and its Task Forces

NPCC reviewed the extent to which the NPCC members expect to be able to reliably operate the bulk power system during a pandemic. The results were favorable and demonstrated NPCC preparedness. .

NPCC also initiated event analyses of 10 major system incidents.

### **2008 -2009 Summary**

Continuing the efforts initiated in 2007, NPCC has approved the following through May 31, 2009:

#### **Directory Support**

- ✓ Directory #3 – Maintenance Criteria for Bulk Power System Power System Protection (A-04) be submitted for Full NPCC Membership approval and subsequent retirement of NPCC Documents A-4 and Document B-23, whose contents have been incorporated in the Directory
- ✓ The technical content of the A-04 Document (Maintenance Criteria for Bulk Power System Protection) as amended, recommending NPCC membership approval as a criteria document in Directory #3
- ✓ The technical content of the A-13 Document (NPCC Verification of Generator Gross and New Real Power) as presented, recommending NPCC membership approval as part of Directory #9
- ✓ The technical content of the A-14 Document (NPCC Verification of Generator Gross and New Reactive Power) as presented, recommending NPCC membership approval as part of Directory #10
- ✓ Directory #8 – System Restoration and Directory #2 – Emergency Operations Criteria be submitted for Full NPCC Membership approval, with subsequent retirement of the referenced NPCC Criteria Documents whose contents have been incorporated in the Directory.
- ✓ Directory # 9 – Verification of Generator Gross and Net Real Power Capability (Document A-13) for NPCC Membership ballot
- ✓ Directory # 10 – Verification of Generator Gross and Net Reactive Power Capability (Document A-14) for NPCC Membership ballot
- ✓ Directory # 12 (UFLS Program) and Directory # 2 Revision to be submitted for Full NPCC Membership approval
- ✓ Directory # 3 (Revised Maintenance Criteria for BPS System Protection) to be submitted for Full NPCC Membership approval

### **Regional Standards Support**

- ✓ Task Force on Coordination of Planning to initiate the drafting of the NPCC Regional Standard for the Classification of Bulk Power System Elements (BPS-501-NPCC-01)
- ✓ Assignment of the Task Force on System Protection as the Lead Task Force to initiate the drafting of the proposed NPCC Disturbance Monitoring Regional Standard PRC-018-NPCC-01
- ✓ Assignment of the Task Force on System Studies as the Lead Task Force to initiate the drafting of the proposed NPCC UFLS Program Regional Standard PRC-006-NPCC-01
- ✓ Assignment of the Task Force on System Protection as the Lead Task Force to initiate the drafting of the proposed NPCC Special Protection Systems Regional Standard PRC-012-NPCC-01

The following Reliability Assessments and Reviews have been completed through May 31, 2009:

### **Transmission Reviews**

- ✓ The 2007 New York Interim Transmission Review
- ✓ The 2007 Québec Comprehensive Area Transmission Review
- ✓ The 2007 Ontario Comprehensive Area Transmission Review
- ✓ The 2008 Ontario Interim Transmission Review
- ✓ The 2008 Québec Interim Transmission Review
- ✓ The 2008 New York Intermediate Transmission Review
- ✓ The 2008 Maritimes Intermediate Transmission Review

### **Resource Adequacy Reviews**

- ✓ The 2007 New England Interim Review of Resource Adequacy
- ✓ The 2007 Québec Interim Review of Resource Adequacy
- ✓ The 2007 Maritimes Comprehensive Review of Resource Adequacy
- ✓ The 2007 New York Interim Review of Resource Adequacy
- ✓ The 2007 Ontario Interim Review of Resource Adequacy
- ✓ The 2008 New England Comprehensive Review of Resource Adequacy
- ✓ The 2008 Maritimes Interim Review of Resource Adequacy
- ✓ The 2008 Québec Comprehensive Review of Resource Adequacy

### **Special Protection Systems**

- ✓ Removal of the Type 1 Special Protection System #132
- ✓ Hawthorne Type I Special Protection System (SPS)

### **Assessments & Reports**

- ✓ The 2008 NPCC Regional Reliability Plan
- ✓ The NPCC Underfrequency Load Shedding (UFLS) Assessment, including the parameters for modifying the NPCC UFLS program to meet the specified performance requirements with a cost estimate and implementation plan.
- ✓ March 29, 2006 St. Lawrence Disturbance Report
- ✓ February 4, 2008 Review of the Québec-Ontario Inadvertent Synchronization
- ✓ July 17 & 21, 2008 Review of the Québec Vegetation Contact Events
- ✓ Disturbance Report - July 24, 2008 New England – Maritimes Separation

- ✓ Disturbance Report - September 24, 2008 New England – Maritimes Separation
- ✓ Disturbance Report – October 25, 2008 Nicolet SPS Misoperation
- ✓ Disturbance Report – January 2, 2009 Loss of Micoua Transformer - Québec
- ✓ Disturbance Report-March 11, 2009 New York -Québec Synchronization
- ✓ NPCC 2008 Pre-Seasonal (Summer/Winter) Reliability Assessment(s)
- ✓ NPCC 2009 Pre-Seasonal (Summer) Reliability Assessment(s)
- ✓ TFSP Bulk Power System Risk Assessment
- ✓ Wind Modeling in Resource Adequacy Assessments White Paper
- ✓ Governor Modeling White Paper

2. *State Regional Entity’s assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

As demonstrated by its actions detailed above, NPCC has been diligent in its activities to assure reliability in this Program Area.

3. *State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.*

As the power system in northeastern North America changes there will be different reliability challenges to face, for example, reliably integrating more inherently variable power sources such as wind generation, or reliably utilizing the anticipated amounts of Demand Response expected in the future. New stresses on the system will occur as a consequence of these and other system changes. NPCC is dedicated to having the necessary analyses, assessments and corresponding recommendations in-place.

NPCC, through its various Task Forces and Working Groups will continue to improve the quality of its Regional reliability assessments by considering incorporation of risk assessment techniques into its and NERC’s longer-range future reliability assessments.

NPCC will expand the role of the NPCC Governmental/Regulatory Affairs Advisory Group by offering additional opportunities for interested parties and governmental/regulatory officials to discuss concerns on important emerging reliability issues such as those related to resource adequacy, energy scenarios, regulatory proceedings, transmission and generation projects, and smart grid technologies, for example. Teleconferencing and WebEx format meetings will be utilized, to reach as wide of audience as possible. Current NPCC Governmental/Regulatory Affairs Advisory Group lists 50 individuals from 36 organizations.

Eight meetings of the Governmental/Regulatory Affairs Advisory Group have been held through May 31, 2009. The most recent meeting (held via WebEx on May 21, 2009) included presentations on the proposed NPCC 2010 Business Plan & Budget, the proposed New York City – Long Island Wind Power project, the Ontario “Green” Economy Act, and the Ontario Feed-In Tariff, and the DOE 2009 Congestion Study.

All materials of the Governmental/Regulatory Affairs Advisory Group are posted on the NPCC public website at: <http://www.npcc.org/relServices/GovReg.aspx>.

NPCC will continue to encourage NPCC stakeholder participation in the balanced voting Committees, Task Forces, and Working Groups to ensure that all stakeholders are considered for their inputs and concerns before establishing various courses of action.

Based on the feedback received from FERC staff, a summary of the issues related to changing from the reliability impact performance based Bulk Power System (BPS) definition, to a 100kV and above definition of Bulk Electric System (BES) was provided to the RCC at their May 2008 meeting. The RCC has been charged by the NPCC Board to provide a recommendation by September 20, 2009.

The RCC continues to review the activities of the NPCC Joint Task Force Chairs in pursuit of the NPCC Board's BES assessment, providing additional guidance on questions received on the proposed BES definition, schedule, and the economic and reliability analyses. In addition, WECC's current activities to clarify the definition of the term "Bulk Electric System" are also being monitored. An informational status report of NPCC's activities to date was filed with FERC on June 5, 2009; a status report was also sent to the affected US registered entities on June 12, 2009.

#### ***D. Situation Awareness and Infrastructure Security Program***

The Situation Awareness and Infrastructure Security Program is the combination of near real time awareness of conditions on the bulk power system with the programs necessary to increase the physical and cyber security of the electricity infrastructure. This includes the operation and maintenance of tools and other support services for the benefit of Reliability Coordinators and other system operators. Maintaining the real-time awareness of conditions on the interconnected bulk power systems of the NPCC Reliability Coordinator Areas (including awareness of abnormal events, communicating information concerning system conditions and abnormal events to, and facilitating real-time communications among, system operators responsible for the reliable operation of the bulk power systems) is critical to maintaining reliable operation within NPCC.

On an ongoing basis, NPCC monitors the operational status of the bulk power system and coordinates normal and pre-emergency communication, awareness and assistance in addition to the same during an emergency among the Areas. The industry is notified of significant bulk power system events that have occurred in one Reliability Coordinator Area, and which have the potential to impact reliability in other NPCC Reliability Coordinator Areas or Regional Entities external to NPCC. These events include contingencies on the bulk power system, potential shortfalls of operating reserve, operating problems, potential security threats and potential threats or disruptions to the cyber systems of the Reliability Coordinator Areas.

To assist in the evaluation of emerging tools to better identify evolving system conditions, NPCC actively coordinates the utilization of existing operational aids, and the implementation of new operational aids, including the Area Control Error (ACE) and Frequency Monitoring System; the NERC Hotline; Real-time Flows; the System Data Exchange (SDX); the Reliability Coordinator Information System (RCIS); the Transmission Services Information Network (TSIN); the Interchange Distribution Calculator (IDC); the interregional Security Network (ISN); and the Central Repository for Security Events (CRC).

*1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.*

The events of September 11, 2001 renewed the focus on potential threats to the physical infrastructure of the electric power system. In response, the NPCC System Operations Managers Working Group (CO-8) has in place the availability for 24 x 7 conference calls among the NPCC Reliability Coordinator Area managers to address security threats within NPCC and the proper operating posture in response to such threats. A drill simulating the NPCC Security Conference Call is held among the control room managers on at least a monthly basis; the drill is conducted at random times.

The NPCC Emergency Preparedness Conference Call mechanism is a tool that has been put in place that enables the Reliability Coordinator Area Operations Managers in NPCC, and, as required, their counterparts in neighboring Regional Entities, to rapidly communicate the status of current operating conditions and facilitate the procurement of assistance during emergency conditions. Items of particular concern that can be discussed during the Emergency Preparedness Conference Calls may include, but are not limited to, the following:

- anticipated weather only as it is critical to the system or systems experiencing or projecting resource deficiencies
- load forecast
- largest first and second contingencies
- potential need for emergency transfers
- operating reserve requirements and expected available operating reserve capacity deficiencies
- potential fuel shortages or potential fuel supply disruptions which could lead to energy shortfalls
- identified or projected voltage conditions
- status of short term contracts and other scheduled arrangements, particularly those that impact operating reserves
- additional capability available within four hours and additional capability available within twelve hours
- coordination of pumping schedules
- any problems that might develop due to light load and minimum generation requirements
- generator outages that may have a significant impact on an adjacent Area or neighboring system
- transmission outages that may have an adverse impact on internal and external energy transfers
- expected transfer limits and limiting elements
- anticipated implementation of NERC Transmission Loading Relief (TLR) procedures or Lake Erie Emergency Redispatch (LEER) procedures
- the temporary modification or changes in the status of relay protection systems such that the normal levels of protection will not be provided
- the arming of special protection systems not normally armed
- the application of abnormal operating procedures

NPCC has also established a daily conference call to serve as a complement to the NPCC Pre-Emergency Conference Call and the Weekly Conference Call. The participants of the call are the control rooms of the Midwest ISO, PJM, New Brunswick System Operator, ISO New England Inc., the New York ISO, Hydro-Québec, and the Independent Electricity System Operator and NPCC Staff. The conference call is implemented through a bridge, the initiation of the call quickly ringing all pre-selected telephones simultaneously. The goal of the call is to alert all neighboring Areas of emerging problems. If no system difficulties are anticipated for the day, no unnecessary information is to be discussed. Subjects for discussion are limited to credible events which could impact the ability of an Area to serve its load and meet its operating reserve obligations or would impose a burden to the interconnection, including the following:

- Projected Load
- Adverse Weather
- Operating Reserve
- Generation
- Transmission
- Sabotage

If conditions worsen in the course of the day, the NPCC Pre-Emergency Preparedness Conference Call will be held among the NPCC Reliability Coordinator Area Control Room Managers.

NPCC has actively participated in the NERC-FERC operational awareness initiative. At the request of the United States Federal Energy Regulatory Commission (FERC), the Reliability Coordinators are developing procedures to provide to the FERC near-real time overviews of operating information for their respective footprints. The intent of the effort is to permit the FERC to “measure the health” of the Interconnections and to monitor parameters which may warn of a developing crisis. The project is proceeding in two phases. The initial phase has established, on a daily basis, the dissemination of a spreadsheet projecting basic operating information, including projected load, projected weather at the time of the system peak, the peak load for the previous day, the aggregate generation unavailable and the numbers of key transmission lines unavailable.

For the second phase, NPCC has implemented a geographically based visualization of selected reliability indicators to expand the operational awareness of the Reliability Coordinators (RC) of NPCC, providing an enhanced wide area view of each of the five RC footprints in the Northeast and permitting the Reliability Coordinator to make more informed real-time operating decisions. The display went into service on June 1, 2009.

Each Reliability Coordinator of NPCC has access within the control room to the following near real time displays:

- a geographic visualization of the complete NPCC footprint; or
- a detailed geographic visualization of any of the neighboring Reliability Coordinator footprints within NPCC.

Each screen displays the following data:

- Reliability Coordinator Area load;



- Reliability Coordinator Area Control Error (ACE);
- scheduled net interchange with its neighboring Reliability Coordinator Area;
- actual net interchange and limits with its neighboring Reliability Coordinator Area;
- key interface loadings with limits;
- system frequency at selected locations in each Reliability Coordinator Area; and
- key bus voltages with typical operating range.

Historical data is displayed for the past four hours or the past twenty-four hours as selected by the viewer. Arrows will indicate interface flow and direction, and the color of the arrow changes as the loadings increase (Green will indicate normal loading levels; at 80%, the color will change to yellow and ultimately red.).

To ensure the capability for continued voice communications among NPCC and its Reliability Coordinators, a satellite telephone network has been established and tested. This back-up communications system will function in the event of a collapse of the Public Switched Telephone Network (PSN), and cross-border voice communications can still be maintained among the Canadian Reliability Coordinators of NPCC and the Reliability Coordinators in the United States.

NPCC is initiating the identification of needed enhancements to operational tools suggested by the final report of the NERC Real-time Tools Best Practices Task Force through an internal survey of NPCC Reliability Coordinators, Balancing Authorities and Transmission Owners.

NPCC has finalized a consistent and standard methodology to guide the formal peer review of Reliability Coordinator Area restoration plans. Such a review will be conducted annually to ensure that each Reliability Coordinator's restoration plan remains current and viable.

NPCC has developed a proposed methodology through which inter-Area reserve may be secured as a market product.

NPCC has established an internal system for the dissemination to the appropriate contact of a NERC Alert with respect to cyber and physical threats. The Alert will be directed to the personnel within NPCC who can promptly adopt the necessary mitigating actions. NPCC is working with other Regional Entities to develop such a tool throughout the grid.

NPCC has completed its events analysis of numerous system disturbances from which operating lessons may be learned, some of the most important of which include:

- the St. Lawrence event of March 29, 2006
- a survey of the shunt capacitor installations in NPCC vulnerable to the excessive Rate of Rise of Recovery Voltage (RRV) demonstrated by the Richview disturbance of January 30, 2007, and the monitoring of mitigating measures
- the Con Edison event of June 27, 2007
- February 4, 2008 Review of the Québec-Ontario Inadvertent Synchronization
- July 17 & 21, 2008 Review of the Québec Vegetation Contact Events
- Disturbance Report - July 24, 2008 New England – Maritimes Separation
- Disturbance Report - September 24, 2008 New England – Maritimes Separation
- Disturbance Report-March 11, 2009 NY-Québec Synchronization

NPCC has drafted proposed “Critical Asset Identification Guidelines” to target facilities which will come under the purview of the NERC Cyber Standards, including a proposal for identifying generators subject to the Standards.

2. *State Regional Entity’s assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

NPCC has strongly focused on the need for effective communications, and the exchange of essential operating data, among the Reliability Coordinators of NPCC. NPCC has in place effective procedures, methodologies and supporting documentation to continue a high level of effective and professional communications, and, in doing so, continues to offer an exemplary level of reliable system operations within the northeast.

3. *State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.*

As demonstrated by the events of August 14, 2003 the interconnected power systems require ever more inclusive wide area views to permit better visualization of emerging events in order to contain and mitigate an emergency situation. The NPCC wide area display now resident in each Reliability Coordinator Area control room represents a significant enhancement to the improved awareness of the system operator in NPCC.

#### **E. *Budgeting***

1. *Describe Regional Entity’s activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.*

NPCC members of the voluntary predecessor organization funded activities in 2006 that positioned the company for Regional Entity status and consistency in functions and services including business plan and budget (BP&B) development. NPCC’s then Treasurer and Executive Director had several 2006 teleconference meetings with NERC’s then CFO to gain insight with regard to the anticipated requirements of a comprehensive end product BP&B for submission to FERC and Canadian governmental and/or regulatory authorities.

With the goal of consistency, NPCC’s CPA firm mapped NPCC’s 40+ year System of Accounts to the NERC System of Accounts in later 2006 and then NPCC adopted the NERC System of Accounts effective January 1, 2007. Additionally, NPCC financial statements had been provided on a modified cash basis of accounting from the company’s inception in January, 1966 through December 31, 2006. Effective January 1, 2007 NPCC moved to the accrual method of accounting to be consistent with NERC’s accounting methodology so that tracking of receipts and expenditures would support consistency in BP&B development and submission.

To further be in step with NERC, NPCC in late 2006 purchased the MIP Fund Accounting software package by Sage, which is a not-for-profit accounting software

program that NERC's then CFO endorsed, as NERC had been using MIP for some prior years, and NPCC moved from QuickBooks to MIP effective January 1, 2007. Each of these activities supported ultimate accomplishing consistently developed and submitted BP&Bs.

While there have been template changes, process refinements and enhancements, NPCC, through participation with the Regional Entity Budget Group (REBG), via in person meetings and teleconferences, continues to work to enhance what has been a very successful process for development, stakeholder input, Board approval and submissions of the 2007, 2008 and 2009 BP&B's. NPCC feels that the process is a great success and is continually improving.

2. *State Regional Entity's assessment of its own effectiveness in developing its business plans and budgets and in the submission of its business plans and budgets in a consistent manner with NERC and the other Regional Entities.*

NPCC has been extremely engaged with NERC and the other Regional Entities with regard to its BP&Bs being developed in a consistent manner and this has provided for superior effectiveness. Through the REBG, NERC and the Regional Entities continue to share process and procedure practices, guide one another to consistency, and make for a superior product. NPCC has been able to develop draft BP&Bs for extensive stakeholder review and input and has met all of the target deliverables in a timely manner, while incorporating the comments or concerns of the international bulk power system participants in Northeastern North America.

3. *State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.*

Through the REBG, NPCC believes that even greater consistency can be achieved. NPCC would propose that standard language with regard to standards development and compliance and enforcement could be applied to all of the NERC and Regional Entity future BP&Bs. Exception or expansion text could be included where specificity is called for. This approach would make review more seamless to the stakeholders and Boards as well as for FERC and Canadian governmental and/or regulatory authority review. Adequacy will remain somewhat of an unknown in recognition of the fact that a system can always be more reliable but that each and every BP&B must consider the realities of finite resources and expertise. One of the many challenges facing the industry as a whole is the aging workforce of technical experts. Retention and recruitment will continue to be at the forefront of providing effective, adequate and consistent BP&Bs that support enhanced international interconnected bulk power system reliability.

**ATTACHMENT 4D**

**RELIABILITYFIRST CORPORATION**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



**ReliabilityFirst Corporation's Statement  
Of  
Activities, Achievements, and Effectiveness in Carrying Out  
Its Delegated Responsibilities**

**Introduction**

ReliabilityFirst Corporation (ReliabilityFirst) is a not-for-profit corporation incorporated in Delaware. ReliabilityFirst's purpose is to ensure and enhance the reliability and adequacy of the bulk electric system in the thirteen states and District of Columbia that comprise its regional footprint via the development of and enforcement of Reliability Standards, forward-looking assessments of the current and projected reliability of the bulk electric system, promoting situational awareness, and other key functions delegated to it by the North American Electric Reliability Corporation (NERC).

In May of 2007, ReliabilityFirst executed an Agreement with NERC for the purpose of delegating to ReliabilityFirst certain responsibilities and authorities as a Regional Entity as defined by Section 215 of the Federal Power Act, Federal Energy Regulatory Commission regulations and directives, and NERC Rules of Procedure.

**I. Reliability Standards Development**

**A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.**

ReliabilityFirst has used its Regional Standards Development Procedure as the process for adoption of a Regional Reliability Standard and the development of consensus for adoption, approval, revision, reaffirmation, and deletion of the following:

1. BAL-002-RFC-2 (Operating Reserves)
  - ReliabilityFirst Board approved - 05/09/07
  - Submitted for NERC review and posting – 1/2/08 through 1/31/08
  - ReliabilityFirst Board reclassified as regional criterion pending additional NERC revision to the associated NERC standard – 10/8/08
2. ReliabilityFirst Reliability Standards Development Procedure
  - ReliabilityFirst Board approved - 12/06/07
  - ReliabilityFirst Board concurrence - 05/22/08

3. BAL-502-RFC-2 Planning Resource Adequacy Analysis, Assessment and Documentation
  - Reliability*First* Board approved - 12/04/08
  - Submitted for NERC review and posting – 1/26/09 through 3/12/09
  - Reconciliation of any comments received via NERC posting and subsequent NERC Board approval estimated by 8/4/09
4. BAL-501-RFC-1 - Automatic Reserve Sharing
  - Retired by Reliability*First* Board - 10/08/08

Reliability*First* is either currently developing or will be developing the following Regional Standards per the NERC Three Year Work Plan:

- PRC-002-RFC-1 Disturbance Monitoring and Reporting Requirements
  - Third ballot, 100% category affirmative vote – 2/18/09 through 3/4/09
  - Approved by Reliability*First* Board 5/14/09 and subsequently submitted to NERC for NERC approval
- PRC-006-RFC-1 Automatic Under Frequency Load Shedding Requirements
  - Fifth comment posting – 1/21/09 through 2/19/09
  - Submitted to NERC for posting 2/26/09 through 4/13/09
- PRC-012-RFC-1 Special Protection System Requirements
  - Initial drafting team conference call occurred in April 2009
- EOP-001-RFC-02 Emergency Operations Plans
  - Initial drafting team conference call occurred in April 2009
- EOP-501-RFC-02 Transmission Emergency Action Plan
  - Initial drafting team conference call occurred in April 2009

Reliability*First* is currently developing the following Regional Standards to fill the reliability gap until Continent wide NERC standards are approved:

- MOD-024-RFC-1 Verification and Data Reporting of Generator Gross and Net Real Power Capability
  - Affirmative ballot – 1/08/09 through 1/22/09
  - Reliability*First* Board remand for further action – 2/26/09
  - Anticipated completion of remand work and Board approval – 10/8/09
- MOD-025-RFC-1 Verification and Data Reporting of Generator Gross and Net Reactive Power Capability
  - Fourth comment posting – 2/5/09 through 3/6/09
  - Submitted for NERC posting – 2/26/09 through 4/13/09

Since January 1, 2007, Reliability*First* Standards Staff has also provided direction and prioritization of Reliability*First* initiated Reliability Standards and the associated standard related procedures. This includes participation in NERC and other regional standard drafting efforts and related working groups, task forces, etc., such as the NERC Regional Reliability Standards Working Group (RRSWG) and the Functional Model Working Group (FMWG).

1. Reliability*First* Standards Staff volunteered to serve as members of NERC Standard Authorization Request (SAR) Drafting Teams. A staff member was the requestor of four NERC SARs that are currently under development by the NERC Standard Drafting Teams.
2. Reliability*First* Standards Program Staff volunteered to serve as members of NERC Standard Drafting Teams (SDT). Currently a staff member is either chair or vice-chair of two NERC SDTs and we are participating on five other SAR/SDT Teams.
3. Reliability*First* Standards Program staff volunteered to participate on special NERC teams to develop plans and programs related to regional tasks associated with standard development. This includes membership in the RRSWG which deals with the NERC “fill-in the blanks” work plan and coordination of regional standards development across NERC. A staff member is a member of the FMWG and the Standards Committee Process Subcommittee (SCPS). A staff member presented at NERC Workshops dealing with Standard Development and LSE registration issues.

Since January 1<sup>st</sup>, 2007, Reliability*First* has improved its Regional Standards voting process to enhance the effectiveness of the standards development process. Appropriate provisions to clarify that any interested stakeholder may participate and vote on Regional Reliability Standards were added to the procedure, including provisions for a ballot body, ballot pool and category ballots. Subsequently, the Reliability*First* commenting and voting application was modified to reflect the improvements to the Regional Standards Development Procedure.

**B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.**

Reliability*First* uses the NERC and FERC approved Reliability*First* Corporation Reliability Standards Development Procedure, which provides for openness, due process and balancing of interests to develop regional standards. The Reliability*First* Corporation Reliability Standards Development Procedure is included in Exhibit C of the approved Regional Delegation Agreement. The following are the common attributes as listed in Exhibit C of the Regional Delegation Agreement that relate to the criteria of openness, due process and balancing of interests (Common Attributes 22, 23 and 25) and the manner in which Reliability*First* meets these Common Attributes:

1. *“Fair due process - The ReliabilityFirst standards development process shall provide for reasonable notice and opportunity for public comment. At a minimum, the procedure shall include public notice of the intent to develop a standard, a public comment period on the proposed standard, due consideration of those public comments, and a ballot of interested stakeholders.”* ReliabilityFirst routinely informs Ballot Body members and interested individuals of all SARs, comment periods, responses to comment periods and Category Ballot results via email notices and postings on the ReliabilityFirst website.
2. *“Openness - Participation is open to all Organizations who are directly and materially affected by the ReliabilityFirst region BPS reliability. There shall be no undue financial barriers to participation. Participation shall not be conditioned upon membership in the ReliabilityFirst, and shall not be unreasonably restricted on the basis of technical qualifications or other such requirements. Meetings of SDTs are open to the ReliabilityFirst membership and to others.”* Registration on the ReliabilityFirst Ballot Body is open to all interested individuals as long as they qualify for the self-selection category (ies). All meetings of the SDTs are open and the meeting information is publically posted on the ReliabilityFirst website.
3. *“Balanced - The ReliabilityFirst standards development process strives to have an appropriate balance of interests and shall not be dominated by any two interest categories and no single interest category shall be able to defeat a matter.”* The ReliabilityFirst voting process includes a Category Ballot for each proposed standard which is up for ballot. When an interested individual wishes to join a Ballot Pool, they must register in only one of the following categories for each standard that will be voted on. The five categories include:
  - 1) Category 1 – Transmission Owner, Transmission Operator, Transmission Service Provider
  - 2) Category 2 – Generator Owner, Generator Operator
  - 3) Category 3 – Load Serving Entity, Purchasing and Selling Entity, End User
  - 4) Category 4 – Reliability Coordinator, Planning Coordinator, Transmission Planner, Resource Planner, Regional Transmission Organization, Balancing Authority, regulatory or governmental agency
  - 5) Category 5 – Distribution Provider

**C. State Regional Entity’s assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

ReliabilityFirst believes that its standards development has been effective since January 1<sup>st</sup>, 2007. ReliabilityFirst has effectively used the Regional Standards Development Procedure to develop/revise/retire multiple standards. Perhaps most importantly, one standard failed its ballot, indicating the process truly accounts for



stakeholder participation. There has also been a high level of stakeholder participation in the Reliability*First* standards related activities including participation on drafting teams meetings, Standards Committee meetings, industry comment periods and ballot periods. Ballot periods for all approved standards have been accompanied by high quorum levels and high passing percentages.

**D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development**

Reliability*First* is considering increased accountability to develop standards in an expeditious manner which includes:

1. More Standards Committee involvement (direction) and reporting by drafting team chairs.
2. More verbal contact with stakeholders and Reliability*First* groups (i.e. Webinars).

Reliability*First* currently utilizes a web based commenting and voting application hosted by the Midwest Reliability Organization (MRO). Though this application has been effective, Reliability*First* is considering migrating commenting and voting application to the Reliability*First* portal system. By moving the commenting and voting application to the Reliability*First* portal, staff believes having the two functions (Compliance and Standards) under the same organizational platform would be beneficial to industry and would streamline internal operations and maintenance.

Reliability*First* is aware that its standards development program has progressed further than some of the other regions. This is consistent with the 5 year strategic plan that was reviewed by Members and developed and approved by the Board of Directors. The rationale behind the continued progression of the program is to address potential reliability gaps that exist in Reliability Standards until (1) the NERC process can develop new requirements and standards for FERC approval that will replace existing NERC “fill in the blank” standards, some of which require the development of regional standard in accordance with the NERC five year standards work plan and (2) Reliability*First* can consolidate the three sets of legacy requirements that were inherited when it was formed, into a single consistent and clear set. The industry comments received as part of the three year ERO assessment survey will be shared with Reliability*First*'s Board to determine if a shift in strategic direction in standards development is necessary. Reliability*First* does agree that once all necessary NERC standards have been established and put in place, the number of regional standards should be few and many of the then existing regional requirements can be retired or embodied in NERC standards as variances.

Reliability*First* also received a number of comments, particularly from smaller industry entities, regarding the proposed applicability of some draft regional reliability standards compared to NERC's registry criteria. In some cases, proposed standards would appear to apply to entities not currently required to be registered as users, owners, or operators due to the size or connection point of their relevant facilities. During the course of the

Reliability*First* standards development process, industry comments led to modifications to some of these standards, such that their applicability more closely tracked the NERC registry criteria, thus allaying some of the commenter's' concerns. However, the drafting teams continue to consider the technical system needs for reliability and work with industry through the commenting process to gain consensus and the appropriate levels for registration. The apparent disparity between the applicability of reliability standards and the NERC registry criteria will not be unique to Reliability*First*; rather we have only encountered it sooner than some because our program is somewhat more advanced. Each region, and NERC, as well, will face this issue as standard development advances and this issue requires a single and NERC-wide solution. Reliability*First* will continue to make NERC aware of this issue and work with them and the other regions to seek a workable solution.

In addition, to ensure proper outreach and reduce confusion, Reliability*First* is beginning an increase in communications with stakeholders, such as Webinars, and Reliability*First* groups to explain the need for Regional standards (i.e. retirement of Legacy documents and establish clear, consistent and understandable requirements to feed into the NERC process).

## **II. Organization Registration and Compliance Monitoring and Enforcement Program**

### **A. Describe Regional Entity's activities and accomplishments in OC/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.**

- **This description should emphasize quantitative information, e.g.: Staffing; numbers of registered entities registered; numbers of workshops, seminars, training and education sessions, etc. conducted; numbers of compliance audits conducted and reports processed; numbers of other compliance processes conducted and processed, e.g., spot-checks, self-certifications, etc.; numbers of notices of violation issued and processed; numbers of mitigation plans processed.**

### **COMPLIANCE MONITORING AND ENFORCEMENT PROGRAM**

Reliability*First*, in concert with NERC staff, established the scope and type of monitoring methods to be used to monitor each standard for compliance. All requests for information to implement compliance monitoring will be sent to the compliance contact primary (CCP) and the compliance contact secondary (CCS). The CCP and CCS are designated by each Registered Entity as contacts responsible for the coordination and dissemination of data and submittals concerning compliance to the Reliability Standards.

The Reliability*First* compliance monitoring and enforcement program (CMEP) uses eight (8) monitoring processes to collect information to assess and make a determination of compliance:

- Compliance Audits
- Self-Certifications
- Spot Checking
- Compliance Violation Investigations
- Self-Reporting
- Periodic Data Submittals
- Exception Reporting
- Complaints

Compliance audits, self-certifications, periodic data submittals, and spot checks are the primary methods used to monitor for compliance, although the other monitoring methods may be utilized at anytime as needed throughout the year. For a detailed explanation of each of these processes, refer to the “Reliability*First* CMEP” document, which is included as part of Exhibit D to the NERC-Reliability*First* Delegation Agreement.

The Reliability*First* CMEP and all relevant compliance materials can be found on the Reliability*First* website at <http://www.rfirst.org>.

### **Compliance Department Staffing**

The Reliability*First* compliance organization is comprised of three functional groups that interact and work to improve the reliability of the Bulk Electric System (BES). The three functional groups are Audits, Enforcement, and Program Implementation.

At the beginning of 2007, the compliance department was allotted 14 positions. As we progressed in 2007, we realized that the approved staffing would not be adequate to effectively perform all of the responsibilities as outlined in the Delegation Agreement. It became very clear that with the number of entities registered, additional expertise would be necessary including legal support, paralegal, data management, planning engineering, cyber, etc. A manpower assessment was performed and presented to the Reliability*First* Board in support of the 2008 Business Plan. The Board approved an increased compliance staff of 23 FTEs based upon this assessment, which the organization is striving to complete. In order to establish ourselves as capable to make the determinations relative to standard violations and be in a position to negotiate and debate with the experienced experts with the registered entities, our staff experience and qualification level is required to be high. Staffing with qualified personnel will remain as a very high priority. Currently the compliance staff consists of the following individuals:

Vice President and Director of Compliance - 1  
Compliance Managers - 3  
Senior Consultants - 4  
Senior Compliance Engineers - 6

Engineering Assistants – 2  
Paralegal – 1  
Attorneys - 2

**Some highlights from calendar years 2008 and 2007 are provided below:**

**2008**

- Self Certifications
  - The region has processed 4,503 self certifications, which includes the CIP survey results.
  - 1,418 self certifications were CIP related
  - 3,095 self certifications were related to all other reliability standard reporting
- Off-Site Compliance Audits completed - 47
- On site Compliance Audits completed – 12
- Performed 3 Spot Checks, with reviews of over 380 registered entities
- CIP Reporting was done via the new portal system, and all required data was tallied and sent to NERC. One self reported violation was substantiated by survey results.
- Three compliance seminars were held; total attendance was 254 participants.
- A compliance forum was also held and attended by 110 stakeholders. The forum format is a more open dialogue with the participants, versus staff-delivered presentations and allowed the stakeholders to play a more active role to ask questions and get their issues addressed.
- ReliabilityFirst audit staff participated in NERC web based training for auditors, attended the lead auditor training, and also were trained by an outside firm presenting supplemental auditor training techniques used by financial auditing firms. An investigations training session conducted by FERC was also attended by many of the ReliabilityFirst compliance staff.
- Initiated two Compliance Violation Investigations.
- Registered entities were invited to share feedback directly with the ReliabilityFirst Board Compliance Committee. Two registered entities took advantage of the opportunity and provided valuable feedback.

**2007**

- Self Certifications – 2,726
- Self Reports – 363
- Audits Performed – 8 within region and 2 joint with other regions, due to cross-boundary registered entities. Entities were audited against 312 standard requirements. Post-audit surveys were performed to assess entity feedback on process.
- Data Submittals – 219
- Disturbance Control Standards/Control Performance Standards Submittals – 198
- Investigations – 6
- Spot Check – 1 Standard, 17 Entities
- Seminars – 2, with 213 attendees

**Enforcement Activities**

Summary of the number of violations assessed and processed in 2007, 2008, and 2009 to date.

<b>Violation Timeframe</b>	<b>Number of Possible Violations Reviewed</b>	<b>Number of Violations With Sufficient Basis</b>	<b>Notices of Alleged Violation Filed (#Violations)</b>	<b>Notices of Confirmed Violation Filed. (#Violations)</b>	<b>Number of Violations Complete</b>
2007 Pre-June 18	293	183	N/A	N/A	175 (8 Violations moved to Post-June 18 Status)
2007 Post-June 18	48	42*	16	14	1
2008	184	71*	2	0	0
2009 YTD	23	13*	0	0	0

\*Note: Fifty-Eight (58) violations are presently in settlement discussions. 2009 YTD values are as of May 31, 2009.

Summary of the number of mitigation plans processed to date.

<b>Mitigation Plan Timeframe</b>	<b>Number of Violations with Mitigation Plans Submitted</b>	<b>Number of Violations with Accepted and Approved Mitigation Plans</b>	<b>Number of Violations with Mitigation Plans Certified as Complete</b>	<b>Number of Violations with Mitigation Plans Verified as Complete</b>
2007 Pre-June 18	183	183	175 (Remaining 8 Moved to Post-June 18 Status)	18
Post-June 18, 2007 TD	97	91	75	33

The most significant change since 2007 was the enforcement of mandatory Reliability Standards as of June 18, 2007. This is when FERC approved standards became enforceable by law along with the ERO and all of the Regional Entities taking on a new role for enforcement of compliance. As such, ReliabilityFirst took the NERC CMEP and implemented it across the entire ReliabilityFirst group of registered entities.

ReliabilityFirst established a single definition for the “Bulk Electric System (BES)” for application across the entire footprint. This is a major step forward, as there were three separate definitions for the various parts of the footprint previously. This definition included stakeholder input and required a transition period for the registered entities within ReliabilityFirst. This transition period ended in December of 2008 and all registered entities are now subject to compliance and enforcement based upon the BES definition. The single definition will result in more uniform application of reliability standards throughout the footprint.

ReliabilityFirst started accepting the reporting of self-certifications by an electronic reporting system and has since moved to a portal system that is being used by 6 of the eight regions and NERC. Implementation of the portal data management system allowed each entity to self-certify via the data management system rather than e-mails or faxes to help facilitate accounting for over 360 registered entities.

ReliabilityFirst Compliance Staff assigned a compliance staff member as the point of contact for all reliability standards. That listing with contact information was posted on our website and was developed to assist registered entities when standards or compliance questions arise.

ReliabilityFirst also assigned a compliance staff primary and secondary person to each registered entity as a contact to address any of their concerns. This listing is posted on our website.

## **ORGANIZATION REGISTRATION**

As specified under ReliabilityFirst's Delegation Agreement with NERC, ReliabilityFirst will continue to register organizations responsible for complying with Reliability Standards in accordance with Section 500 of the NERC Rules of Procedure. ReliabilityFirst will identify the owners, operators, and users of the bulk power system that meet the definition of Registered Entities within ReliabilityFirst's area of responsibility.

Forms to register organizations and revise existing organization registrations are available on the ReliabilityFirst website.

ReliabilityFirst has developed and maintained a ReliabilityFirst Compliance Registry with updates as changes occur to the registry and routinely provides this information to NERC.

A registered entity may choose to appeal its registration by first notifying ReliabilityFirst staff in writing or by transmittal of an electronic document that it disputes the registration. The notification should include a description of facts that supports the entity's position. The ReliabilityFirst Staff will review the dispute, including the Entity's supporting documentation. ReliabilityFirst Compliance Staff will assess the appeal using technical knowledge, experience, and judgment based on the information provided by the entity.

The ReliabilityFirst compliance staff will make an initial determination of each registration dispute. If the initial determination of the ReliabilityFirst Compliance Staff is in agreement with the entity, the entity will be notified in writing or by transmittal of an electronic document and the process is complete. ReliabilityFirst will notify NERC of any registration changes.

If the ReliabilityFirst Compliance Staff does not accept the position of the entity, the entity will be notified in writing or by transmittal of an electronic document of the initial determination and the supporting basis for the decision. If the entity chooses to advance the appeal, they must submit a registration appeal to NERC.

Additional Organization Registration and Certification data:

- Performed two Organization Certifications of registered entities, with guidance and participation from NERC. One of these efforts was for a multi-regional entity and ReliabilityFirst staff led the certification
- Entities Registered 357
- Functions Registered 674

**B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its Region.**

All compliance and enforcement activities conducted by ReliabilityFirst are governed by and are consistent with our NERC and FERC approved CMEP.

ReliabilityFirst uses multiple and varied means to reach out to Registered Entities regarding the exchange of information related to compliance, preparing mitigation plans, submitting data, and updating the status of compliance activities. Examples of some of these various communication methods include a monthly web-based newsletter and a communication directly emailed to the compliance contacts outlining upcoming events or filings due within the next month. Additionally, each Registered Entity is assigned a ReliabilityFirst compliance staff member as a primary contact to develop individual knowledge of the registered entity as well as build a relationship with those directly responsible for implementing their compliance programs. Establishing and enhancing the communication between ReliabilityFirst and the registered entities provides the framework for setting the clear expectation of compliance and cooperation and the free flow of information and evidence that is vital in assessing compliance.

When possible violations are uncovered, an initial quick assessment is made as to the potential risk to reliability that may exist and whether any immediate action must be taken to mitigate that risk. This initial assessment is usually in the form of a phone call followed up by a simple initial information request. Once an initial assessment is done, a formal, much more detailed information request is conducted. This detailed information allows ReliabilityFirst to judge the adequacy and completeness of any proposed mitigation plan. ReliabilityFirst places an emphasis on root cause determination during violation identification and determination and on the corresponding corrective action described in the associated mitigation plans.

When the depth, breadth, and scope of the violation is determined, the Notice of Alleged Violation and Proposed Penalty is prepared and the registered entity is contacted and instructed as to the contents of the notice and informed on the process and the options available for resolution.

Setting the expectation of compliance, providing fair and consistent treatment in enforcement actions, and diligently requiring proof of mitigation plan completion and return to a state of compliance, all enable ReliabilityFirst to fulfill the duty of ensuring reliability of the BES within the ReliabilityFirst region. The self-assessment activity, as evidenced by the number of self-reports, indicates that registered entities are diligently pursuing reliability; and their subsequent cooperation after any deficiency is testimony to the strong desire to be compliant to all standards.



**C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards**

ReliabilityFirst adheres to and performs in an unbiased and rational manner when enforcing the FERC approved reliability standards. ReliabilityFirst employs its Compliance Monitoring and Enforcement Program (Exhibit D to its approved Delegation Agreement), which provides fair and impartial procedures for the enforcement of Reliability Standards. Additionally, all employees and contractors sign Non-Disclosure and Confidentiality Agreements and Conflict of Interest forms and are as well governed under the ReliabilityFirst Delegation Agreement with NERC and the NERC Rules of Procedure Section 1500. The work history for each audit team member is reviewed and each auditor is given an opportunity to remove themselves on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with an unbiased or impartial performance of duties during the enforcement of the standards.

To ensure independence and eliminate any conflicts of interest, ReliabilityFirst does not allow stakeholder participation in any aspect of its compliance and enforcement responsibilities, including compliance audits. Furthermore, the Board Compliance Committee is chaired by and is comprised of a majority of Independent Directors from our hybrid board.

**D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed**

The effectiveness of the ReliabilityFirst CMEP and OC implementation has improved since January 2007. The improvement has occurred due to many factors, including the hiring of competent and experienced staff, the development and enhancement of internal and NERC associated processes, the evolution of change with these processes, the lessons learned from actually implementing the program, the sharing of experiences at various workshops, and the advancement of knowledge of the Registered Entities regarding the compliance process.

However, the implementation of the enforcement steps of the CMEP has been impacted by the sheer volume of violations identified since January 2007. During the first two years of implementing the CMEP, many enforcement process activities have evolved through much iteration, resulting in a backlog of violations and associated mitigation plan processing. Through the lessons learned associated with the processing of these violations and the hiring of specialized staff, our handling of these violations on a case management approach has enabled us to be more efficient and effective. A backlog reduction plan has been established that should enable us to significantly reduce and hopefully eliminate the backlog by mid 2009, while enabling us to effectively manage these cases going forward. Although this documentation processing backlog developed within the region, it is also an indication that the entities are addressing the standard requirements and making the necessary improvements to assure reliability.

The Organization Certification activities were limited to two entities and were performed successfully. However, the Organization Registration process has been very effective. With over 360 Registered Entities, the overall process has progressed very well. Relative to the number of entities registered, we have experienced a very low number of challenges to the registrations, indicating that the process was fair and accurate. One group of entities challenged their registration as a group, which has been successfully resolved, while only four other entities have challenged their registrations.

ReliabilityFirst, along with five other regions and NERC, has implemented a web based compliance reporting and tracking tool. This tool will make the reporting for the entities and management of data for the region to be much more efficient and accurate when dealing with such a large amount of data reporting. The interconnection of this tool with NERC will also make the transfer of data much more effective and efficient.

ReliabilityFirst is also in the process of implementing a new document management system. It is expected that adding a document management system for tracking compliance issues, monitoring mitigation plan status, and transition activities and as well sending out alerts and reminders to all of our membership on data submittals, etc. will become a more effective and efficient communications tool and will be more customer focused.

ReliabilityFirst continues to reach out to its Registered Entities to further enhance the communication between the region and our Registered Entities. Below are several methods that ReliabilityFirst is using to accomplish this:

1. A monthly newsletter - The ReliabilityFirst newsletter provides entities with news and information relating to ReliabilityFirst's reliability activities.
2. A monthly compliance update letter - The ReliabilityFirst monthly update letter provides Registered Entities with changes and notification of submittal due dates of materials necessary to satisfy compliance requirements.
3. The ReliabilityFirst website - The ReliabilityFirst website provides compliance and technical materials needed to support compliance program implementation.
4. Compliance Workshops/Seminars/Webinars - ReliabilityFirst compliance workshops/seminars or webinars, which will include NERC and FERC related initiatives, are scheduled to assist the Registered Entities in the understanding of their responsibilities to satisfy compliance to all Reliability Standards throughout the year.
5. The compliance portal system and its notification home page allow our Registered Entities to report compliance via an internet based application. The home page provides updates and news worthy items as well as a color coded alert system that

provides the Registered Entities information on when certain standard requirements need responses.

6. Periodic Reports - ReliabilityFirst compliance provides periodic reports to its Registered Entities of its compliance activities and areas of compliance that the Registered Entities continue to struggle with. These reports are posted on the ReliabilityFirst website.
7. Open Compliance Calls - ReliabilityFirst Compliance is developing the capability to facilitate periodic conference calls that are an open forum for our Registered Entities to call into and voice concerns, ask questions, and to be informed about upcoming compliance items.

#### **E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.**

An effective, efficient and consistent compliance program absolutely requires that data and documents are managed in an accurate and timely manner and made readily available to the ReliabilityFirst compliance staff, NERC and FERC in the execution of their respective duties. The amount, type, breadth, and scope of the data and documents being generated in the mandatory reliability standard world are outpacing the capabilities of the current information management system. It is essential that a data and document management system be put in place that provides these capabilities and provides for the error free sharing of crucial information between the Regions, NERC and FERC. As the compliance program has matured and developed, ReliabilityFirst has reduced the most critical processes to written process sheets and is developing a document and docket management system to ensure proper process and procedure is followed with efficiency. This new system will be operational in June 2009.

The realignment of the compliance staff into functional groups continues to be developed. For example, the Enforcement group has initiated a case manager/technical resource team approach for every violation. Once a possible violation is identified, a case manager (typically an on-staff lawyer) and a technical resource (typically an on-staff engineer) are assigned. This team is responsible for all aspects, both procedural and technical, for successful resolution of the violation.

### **III. Other Program Areas**

#### **A. Reliability Readiness Evaluation and Improvement Program**

- 1. Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.**

ReliabilityFirst continued to participate in the NERC Readiness Evaluation program during calendar years 2007 and 2008. ReliabilityFirst participated in ten internal

regional Readiness Evaluations in 2007 and three during calendar year 2008. ReliabilityFirst has continued to be the lead region in providing personnel support for these evaluations. Part way through calendar year 2008, the NERC Operating Committee, along with the entire NERC community, determined to eliminate the Readiness Evaluations Program due to its relationship with the compliance audit program and the overlap that existed.

Although the Readiness Program is being closed out, ReliabilityFirst has elected to continue to track open Readiness Evaluation recommendations to closure. ReliabilityFirst is currently tracking 28 recommendations distributed across 11 companies.

- 2. State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

ReliabilityFirst Corporation continued to be effective in support of this NERC driven program, consistently providing more readiness evaluators than any other region, up until the termination of the program by NERC.

- 3. [Discussion of proposed improvements not needed, since this program is being phased on in the first quarter of 2009.]**

## **B. Training, Education and Operator Certification**

- 1. Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.**

Due to the need for certified operators to attain NERC continuing Education Hours (CEH), ReliabilityFirst does not conduct Operator Certification training. ReliabilityFirst does conduct workshops and seminars throughout the year to provide updates on NERC and ReliabilityFirst programs in the areas of Standards development, Compliance Monitoring and Enforcement, and Critical Infrastructure Protection.

ReliabilityFirst does conduct other training activities for the regional staff under this program area. These activities include training for overall staff improvement and development. Individual, personal development training falls within the responsibility of the respective department manager for his or her staff.

- 2. State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

The Reliability*First* Training, Education, and Operator Certification program area provides training to staff and supports workshops and seminars. Feedback from these workshops and seminars has been positive, with requests for additional events. As the new responsibilities of Reliability*First* as a Regional Entity become clearer, Reliability*First* has expanded its training offerings to include Webinars and will investigate other training opportunities in the future.

**3. State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification.**

The Reliability*First* staff will be conducting training in 2009 for the Reliability*First* Power Flow Model Contact Group for the new Eastern Interconnection Reliability Assessment Group (ERAG) database application. This database was developed under the auspices of ERAG and will be used to produce the power flow base case models under the Multi-regional Modeling Working Group (MMWG) for the Eastern Interconnection transmission system. The MMWG currently uses a database to produce the dynamic models of the Eastern Interconnection transmission system.

**C. Reliability Assessment and Performance Analysis Program**

**1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.**

In support of the ERO, Reliability*First* has analyzed (including performing its own transmission assessment studies), assessed, and reported on the reliability and adequacy of the bulk electric system within its footprint for past, present, and future conditions. This includes conducting seasonal, near-term and long-term separate resource and transmission assessments, analysis of system disturbances, and collection and dissemination of data and information.

Reliability*First* stakeholder representatives take active roles in the NERC, ERAG, and Reliability*First* assessment processes. Reliability*First* staff and stakeholder representatives actively participate in the NERC Reliability Assessment Subcommittee proceedings (including developing enhancements to the NERC assessments), in the three ERAG forum study committees and working groups, and in the regional assessment work, as well.

Along with staff, the Reliability*First* Reliability Committee has overall responsibility for the assessments; with the Resource Assessment Subcommittee conducting the resource assessment and producing the reports, and the Transmission Performance Subcommittee conducting the transmission assessment studies and producing the reports. The actual analysis effort is conducted by independent Reliability*First* staff.

**2. State Regional Entity’s assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Since January 1, 2007, assessment effectiveness has improved with the refinement of both resource and transmission assessment procedures. Assessment reports have been refined to better describe results, and a public version of the transmission assessment reports was developed in 2008.

Resource assessment procedures were revised to collect data from the two large RTOs that operate markets within *ReliabilityFirst*. Also as part of the assessment process, *ReliabilityFirst* reviews the resource adequacy of each RTO as a whole, as well as combined for the entire footprint. The resource assessment reports were also revised to be patterned after the enhanced NERC assessment requirements.

The transmission assessment study methods are (and have been) continually reviewed and revised as needed to better perform the assessment work. Transmission studies have included transfer capability analyses and voltage screening for study clusters within *ReliabilityFirst*.

**3. State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.**

The *ReliabilityFirst* Board of Directors and stakeholders are continuing discussions to review and improve the method in which transmission assessment studies are conducted. *ReliabilityFirst* wants to leverage the work conducted by the two large Regional Transmission Organizations (RTO) that operate within its boundary, as well as provide a thorough, independent, assessment of the bulk electric system. This has been a challenge to find the right balance.

*ReliabilityFirst* staff has developed a detailed event analysis procedure and continues to refine it as more experience is gained from performing disturbance event analyses.

**D. Situational Awareness and Infrastructure Security Program**

**1. Describe Regional Entity’s activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

*ReliabilityFirst* has worked with the Registered Entities in its geographic area to help them understand the intent of the NERC Cyber Security Standards (CIP-002-1 – CIP-009-1), including visits to Registered Entities upon request. *ReliabilityFirst* has

committed to comply with the CIP standards in its own Information Technology area, even though we do not in any way impact reliable operation of the Bulk Power System.

ReliabilityFirst has sponsored a regional Critical Infrastructure Protection (CIP) group since the region was formed. The CIP group is populated by volunteers from the members of ReliabilityFirst, with a structure very similar to that of the NERC CIPC. The CIP group was recently elevated from a Subcommittee to a full Committee reporting directly to the Board of Directors. This action was taken by the Board of Directors in recognition of the importance of Infrastructure Protection to the industry. Members of the ReliabilityFirst CIPC, including the ReliabilityFirst staff representative and the ReliabilityFirst Chief Security Officer (CSO), participate in the activities of the NERC CIPC, including active participation on NERC CIPC working groups. The ReliabilityFirst CSO chairs the NERC CIPC Electricity Sector Information Sharing and Analysis Center Working Group (ES-ISAC WG) that is working closely with NERC staff to recommend improved communications capabilities for the ES-ISAC to use in communicating alerts and other critical information to the industry.

ReliabilityFirst has been working with NERC staff and the staffs of PJM and Midwest ISO to identify tools and communication mechanisms to permit the regional staff to have access to Situation Awareness information. The staff has identified a team of staff members who are responsible for monitoring Situation Awareness and for recognizing the need to initiate Event Analysis and Compliance Investigations when appropriate. All Situation Awareness staff members have secure NERC logons with access to NERC tools such as the Reliability Coordinator Information System (RCIS) and System Data Exchange (SDX). ReliabilityFirst has also established an email address for Registered Entities to forward notification of events reportable to NERC standards and the DOE OE-417 report and has a 24-hour telephone number for telephonic reporting of incidents.

**2. State Regional Entity's assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

The ReliabilityFirst staff continues to develop protocols and procedures for dealing with incidents that occur. We have participated in conference calls involving staff from NERC and other affected regions, as well as staff from the Federal Energy Regulatory Commission (FERC), the Department of Homeland Security (DHS), and other government agencies during events such as the hurricanes that swept through much of the region in 2008. The ReliabilityFirst CSO participates in the bi-weekly conference calls with staff from NERC, FERC, and the other regions to assess recent incidents and to gather and share additional information about these incidents as appropriate. Recognizing that expectations in this area have shifted and communication mechanisms between and among the Regions, NERC and FERC still require some improvement not under ReliabilityFirst's unilateral control, the organization believes that it has been effective in the environment that existed.

**3. State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.**

The Reliability*First* CSO is a member of a group that includes situation awareness staff from NERC and FERC and volunteers from the NERC Reliability Coordinator Working Group (RCWG.) This group is collaborating to develop a Situation Awareness tool that provides information from all Reliability Coordinators (RCs), with the ultimate goal of a common set of information being provided by all RCs. Once this tool is defined and implemented, Reliability*First* will add it to its “toolset” for Situation Awareness. The Reliability*First* Situation Awareness staff continues to refine its protocols and procedures, in coordination with PJM and MISO.

**E. Budgeting**

**1. Describe Regional Entity’s activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.**

Overall, Reliability*First* under spent its 2007 budget by \$2,690,349. 2007 was a year of significant change and uncertainty for all regional entities, playing a major role in Reliability*First* under spending. Our 2007 budget was primarily comprised of two components: (1) operating costs and (2) one-time costs associated with relocating the corporate office.

The 2007 budget was created assuming Reliability*First* would be fully staffed for mandatory enforcement of Reliability Standards by 01/01/07. Mandatory enforcement was delayed until June 18<sup>th</sup> and it was decided to delay filling these positions accordingly. Subsequently, there were difficulties in hiring qualified staff and the vacancy rate was higher than planned.

Lower than budgeted staffing levels caused commensurate lower expenditures for travel and meetings. For budget purposes it was assumed that all telecommuting employees would travel to the main office every two weeks. Actually, our telecommuters traveled only 6 to 12 times a year, thus significantly reducing travel costs. A third contributor was implementing an office Voice over Internet Protocol (VOIP) and virtual meeting capabilities. This gives our employees the ability to collaborate without the need for travel to meet in person.

Reliability*First* achieved its projected budget goal of operating within 5% of budget in 2008.

Reliability*First* entered into a contract for the development and delivery of a Data/Document Management & System Interface (DMSI) application in early 2008. The DMSI project was not included in the 2008 budget due to the timing of the budget cycle,



but \$1.5M was later approved by the Board. It is greatly needed to increase the efficiency and effectiveness of the registered entity-region compliance interface, document tracking, electronic storage and court docket tracking for compliance purposes and also to improve the efficiency of all other delegated functions.

**2. State Regional Entity's assessment of its own effectiveness in developing its business plans and budgets and in the submission of its business plans and budgets in a consistent manner with NERC and the other Regional Entities.**

ReliabilityFirst develops its business plans and budgets in a consistent manner with NERC. Two items impede the effectiveness in developing a business plan and budget. The first is lack of historical information multiplied by the fluid environment. This will diminish as each regional entity gains better insight from past experiences. The second is due to the regulatory requirements of starting the budget process so early in the year. A business plan and budget is difficult to determine 9 months before it starts. This impacts all regional entities and NERC, too.

**3. State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.**

Improvements ReliabilityFirst has put into place to date:

- a. Budgeted new personnel using staggered start dates. Prior assumptions were that all new personnel were to start at the beginning of the year.
- b. Implemented a new accounting package that tracks expenses in finer detail than just the chart of accounts. This package will collect expenses by events such as audits and will eliminate the use of spreadsheets for creating department reports since reports are produced directly from the new software package.
- c. To improve ReliabilityFirst's effectiveness in tracking and forecasting employee travel costs, average costs for various types of travel are now calculated and used by department heads for a bottom up approach in determining travel.
- d. A new time entry system will be implemented in the second half of 2009. This system will give ReliabilityFirst the ability to enter hours worked by the same level of detail for expenses. Matching expenses and time worked by event will provide a more complete picture of costs.
- e. An improvement for which all regions, including ReliabilityFirst, have offered support is changing the timing of the budgeting process. Regulatory requirements dictate the current budget milestones and we recognize the difficulty caused by seeking modification. However, the

process could be modified to allow business plan and budget changes within October. These changes could be approved by all governing bodies through an accelerated approval process. This would give each regional entity an opportunity to true up their business plan and budget to reflect any known changes.

**ATTACHMENT 4E**

**SERC RELIABILITY CORPORATION**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



SERC Reliability Corporation  
2815 Coliseum Centre Drive | Suite 500  
Charlotte, NC 28217  
704.357.7372 | Fax 704.357.7914 | [www.serc1.org](http://www.serc1.org)

**SERC Reliability Corporation**  
**Statement of Activities, Achievements, and Effectiveness**  
**in Implementing Delegated Responsibilities through May 31, 2009**  
**June 24, 2009**

**I. Introduction**

**Overview of SERC Reliability Corporation**

The SERC Reliability Corporation (SERC) is a nonprofit corporation responsible for promoting and improving the reliability of the bulk power systems in all or portions of 16 central and southeastern states. Electric systems in the region serve approximately 23% of the net energy for load (NEL) in North America and 31% of the NEL in the Eastern Interconnection.

SERC executed an agreement with the North American Electric Reliability Corporation (NERC) on May 2, 2007, for the purpose of delegating to SERC certain responsibilities and authorities of a regional entity as defined by Section 215 of the Federal Power Act; Federal Energy Regulatory Commission (FERC) regulations and directives, and NERC rules of procedure.

SERC, initially called the Southeastern Electric Reliability Council, was formed in 1970 as a voluntary association of members comprised of electric industry reliability stakeholders in the southeast. SERC was incorporated as a 501(c)(6) nonprofit corporation in the state of Alabama on April 29, 2005 to position SERC to become a regional entity with an appropriate stakeholder governance structure.

**Membership and Governance**

SERC monitors approximately 225 entities in the region for compliance with mandatory reliability standards. Membership in SERC affords participants the opportunity to participate in the technical activities and governance of the organization. Membership, which is voluntary and is without dues, is open to bulk power system owners, operators, and users in the region and there is provision for end-use customer representation. The number of entities that are members of SERC is approximately 60.

SERC is governed by a Board of Directors, comprised of a representative from each member of the corporation. The Board of Directors delegates responsibility for operational oversight of the corporation to an Executive Committee of 12 directors. In December 2006, the board formed a Board Compliance Committee to oversee SERC's program for monitoring and enforcing compliance with FERC-approved Reliability Standards in the region. In October 2007, the Board also formed a Human Resources and Compensation Committee to advise the President, board officers, and the board on matters related to compensation and human resources.

The Board appoints one director to serve as a non-employee Treasurer of the corporation. The Treasurer is vested by the Board with the responsibility, working with the President, to provide oversight of the finances of the corporation.



Figure 1 provides a high-level view of the SERC board and committee structure.

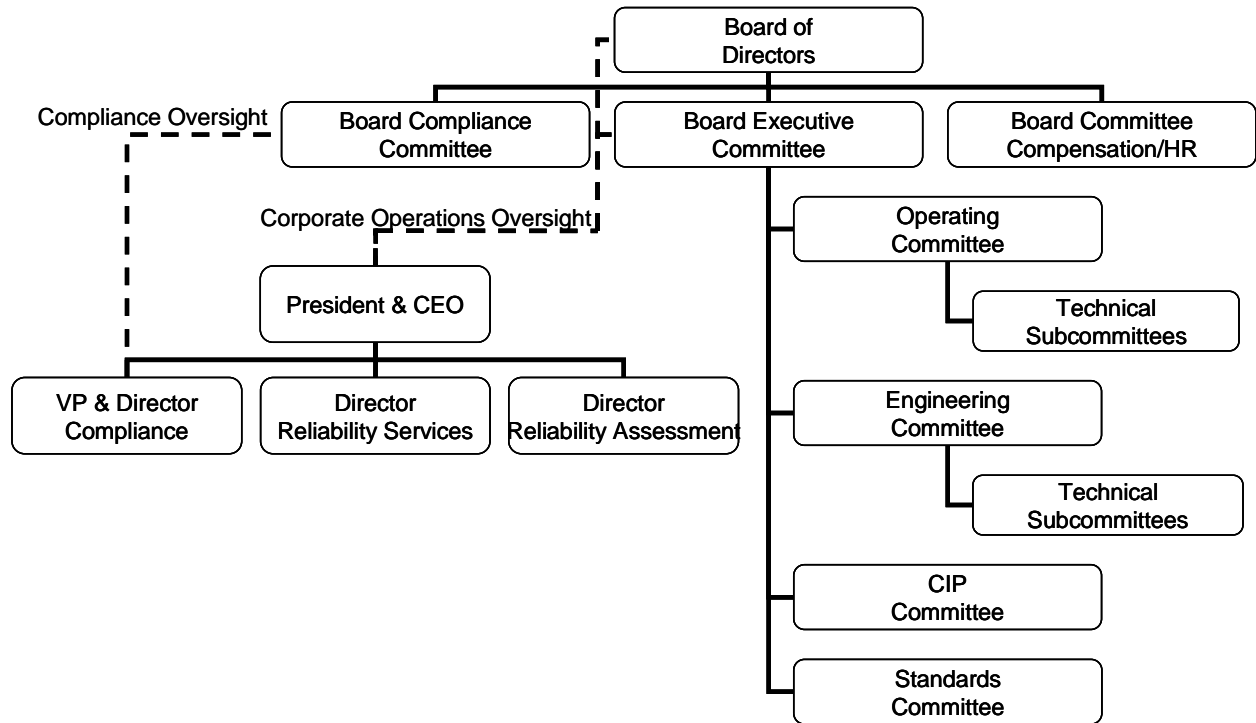


Figure 1 – SERC Stakeholder Organization and Relation to Staff

### Statutory Functional Scope

SERC provides the following statutory functions in support of the electric reliability organization:

- Active participation in the development of North American Reliability Standards for the bulk power system, and as needed, development of reliability standards applicable within the SERC Region.
- Monitoring and enforcement of approved Reliability Standards, including the registration of responsible entities, and as needed, certification of such entities.
- Assessment of the present and future reliability and adequacy of the bulk power system.
- Monitoring reliability performance and promoting reliability improvement.
- Promoting effective training and education of reliability personnel, and assisting in the certification of operating personnel.
- Promoting the protection of critical infrastructure.
- Facilitating situation awareness.

SERC does not provide any non-statutory functions at this time. SERC operates as an independent corporation and is not affiliated with any registered owner, operator, or user of the bulk power system except as defined by the governance of the stakeholder board of directors.



## **Staffing and Resources**

As shown in Figure 2 on the next page, SERC has a targeted staffing level in 2009 of 44.5 power industry professionals and support personnel. Actual staff as of June 1, 2009 was 43.5 FTEs. SERC accelerated its hiring of staff ahead of schedule during 2008 to enable SERC to maintain high productivity and quality levels despite the greater than expected workload in the startup of regional entity activities, particularly in the compliance program.

In recognition of the importance of the compliance role of regional entities, SERC has dedicated half of its staff resources to compliance monitoring and enforcement. The compliance staff encompasses two groups, one conducting compliance audits and the second performing compliance investigations and enforcement.

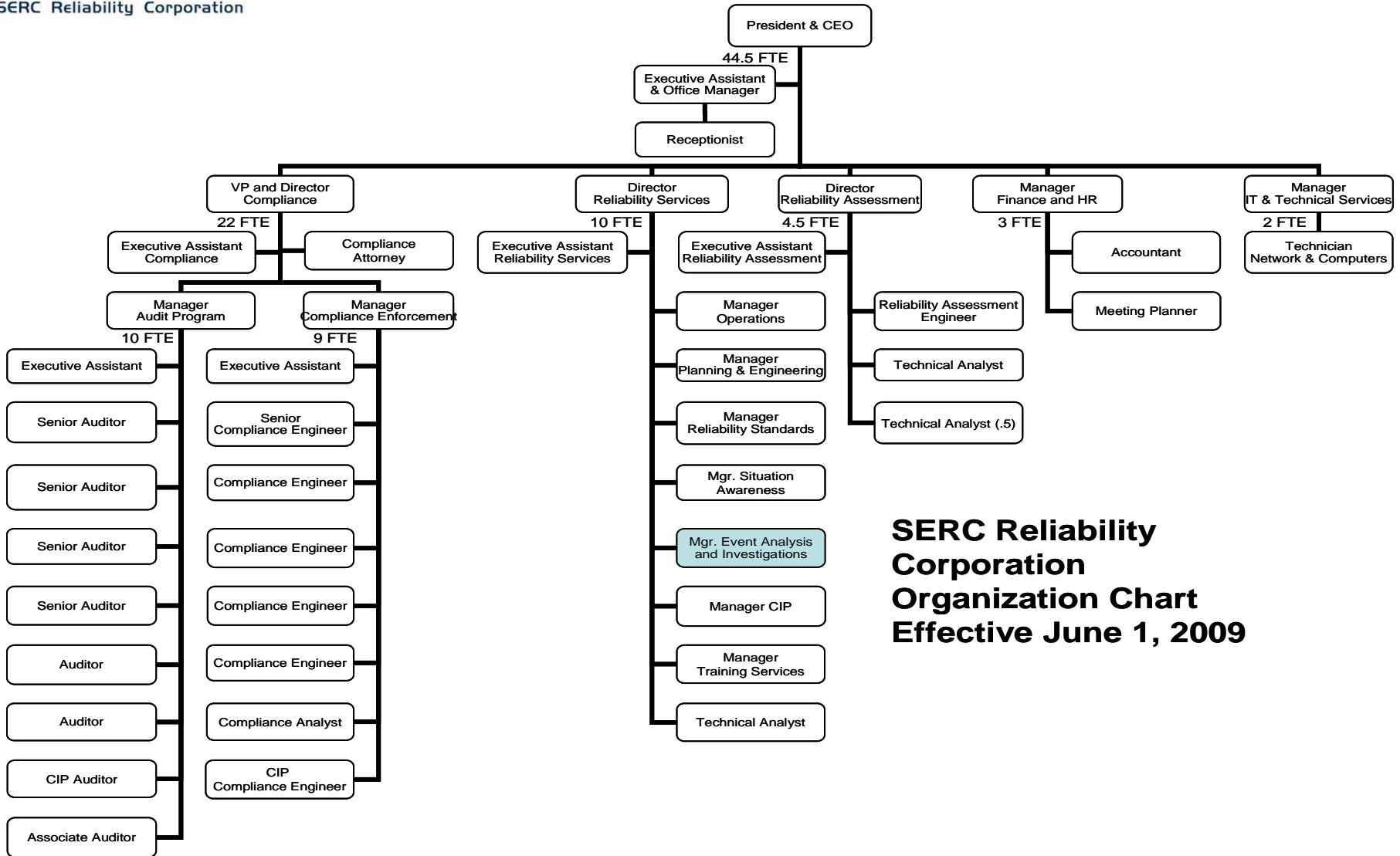
SERC has organized the remaining technical staff into a reliability services group and a reliability assessment group. These experts in operations, engineering, and analysis assist registered entities in assessing and improving reliability. It is in support of these areas that SERC engages the majority of its vast pool of industry experts on its technical committees.

All SERC staff members are payroll employees. SERC does employ contractors and consultants from time to time, but only in support of specific projects or finite work scopes.

## **General Statement of Progress Since January 2007**

Since January 2007, SERC has achieved the following general developments and improvements in the execution of its responsibilities as a regional entity:

1. Modified the SERC bylaws to comply with FERC directives in its order approving the SERC regional entity delegation agreement.
2. Increased staff from 13 FTEs to 43.5 FTEs through an active recruitment program designed to bring in talented and experienced staff from diverse backgrounds.
3. Reorganized the staff along functional lines to assign clear accountability for SERC's delegated functions.
4. Established a new central office in Charlotte, North Carolina and relocated the corporate headquarters from Birmingham, Alabama.
5. Reviewed and updated all regional procedures to comply with FERC regulations and ERO rules of procedure.
6. Completed an internal self-assessment of SERC's compliance with NERC Reliability Standards and the NERC-SERC delegation agreement; and established a document control procedure to maintain continuous evidence of compliance.
7. Established objective corporate performance metrics based on the FERC-approved annual business plan; an external auditor verifies the results compared to the metrics prior to presentation to the Board.
8. Completed a market-based compensation and benefits study to enable SERC to remain competitive in hiring and retaining retain talented staff.



**SERC Reliability Corporation  
Organization Chart  
Effective June 1, 2009**

Figure 2 – SERC Reliability Corporation Staffing Chart Effective June 1, 2009<sup>1</sup>

<sup>1</sup> Unfilled position is highlighted.



9. Entered into an agreement with other regional entities to form the Regional Entity Management Group for the purpose of promoting consistency and efficiency in the implementation of delegated functions across all regions.
10. Implemented an aggressive program for staff development, consisting of an average of two seminars per month, with a goal of 80% of SERC employees receiving at least 20 training hours per year.
11. Reduced the number of face-to-face meetings per year by 40% and increased the number of WebEx and conference calls fivefold to improve participation levels and reduce costs.
12. Established a culture of continuous improvement by soliciting written feedback from board members, registered entities, and other stakeholders regarding SERC's performance in various activities and implementing plans for improvement.

Additional progress specific to each functional area is described in the remaining sections of the report.

### **Review of Stakeholder Inputs**

Stakeholder ratings and comments from the ERO three-year assessment survey support the notion that SERC has developed a fundamentally sound regional entity governance and staff. On the subject of governance and independence, the following inputs were received<sup>2</sup>:

- SERC scored 1.52 (21 respondents) indicating strong agreement that SERC is sufficiently independent of owners, operators, and users to effectively perform statutory duties with objectivity and integrity (Survey Question 63).
- SERC scored 1.61 (18 respondents) supporting the notion that SERC has sufficient rules to ensure its independence from bulk power system owners, operators, and users (Survey Question 65).
- Stakeholders (22 respondents) also agree SERC is qualified, competent, well-prepared, and organized in the conduct of its statutory functions (score 1.64 on Question 59) and is timely and responsive to stakeholders on reliability matters (score 1.71 on Question 60).
- Responses to Questions 64 (1.67 with 18 respondents), 62 (1.74 with 19 respondents), and 51 (1.65 with 20 respondents) indicate stakeholder agreement that SERC is open, transparent, and fair in the conduct of statutory functions and communicates effectively with stakeholders on reliability matters.

The survey results did not indicate any stakeholder concerns with regard to the governance, organization, functional scope, staffing, or general conduct of operations by SERC.

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<sup>2</sup> Scores are based on a scale of 1 to 5, with 1 being fully agree, 3 being neutral, and 5 being fully disagree.





## II. Reliability Standards Development

### A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.

SERC is a strong proponent of a stakeholder-driven, ANSI-accredited standards development process at NERC and of a consistent set of North American-wide Reliability Standards for the bulk power system. The members of SERC actively participate in the development of NERC Reliability Standards. Typically at any point in time there are 75 or more SERC member volunteer experts represented on over 25 NERC SAR and standard drafting teams – there has been a SERC representative on every team to date. SERC members are also active on the NERC Standards Committee and related groups.

The reliability standards program actively informs SERC members and registered entities of NERC standards activities and opportunities to participate. SERC strives to ensure that every notice of a standard development activity at NERC and other regions is forwarded to interested stakeholders within the SERC region. Procedures, forms, meeting agendas and minutes, draft postings, etc., for all regional standards development activities are posted in a timely fashion on the SERC website. Notices on upcoming meetings or postings are sent regularly to SERC email lists and posted publicly. The Standards Committee and drafting team meetings offer WebEx for those team members who are unable to attend in person.

Consistent with SERC's vision of uniform North American Reliability Standards, the region does not currently envision development of region-specific standards, except those required by NERC's Reliability Standards' Three-Year Work Plan. In response to NERC's plan, SERC has the following activities underway to develop regional standards:

- Underfrequency Load Shedding (PRC-006) – Development began with the submittal of a SAR in February 2008. The second draft of the reliability standard has been posted for public comment, with balloting expected in 2009 after NERC finalizes its continental performance criteria.
- Special Protection Systems (PRC-012, 013, 014, 015 & 016) – Development is planned in accordance with the NERC work plan.
- Disturbance Monitoring Equipment (PRC-002) – Development is on hold pending development of a revised North American Reliability Standard.
- Disturbance Control Performance (BAL-002) – Development is on hold pending completion of a revised North American Reliability Standard and a re-evaluation by NERC whether a regional standard is necessary.

In addition to standards, SERC has historically maintained a set of approximately 25 "SERC Supplements" to promote good utility practice and consistency in achieving compliance with Reliability Standards. SERC is in the process of reviewing and updating these documents to distinguish regional criteria contained within these documents from other technical reference materials such as guides, procedures, and white papers. This review ensures all of the technical documents are current with approved Reliability Standards. SERC maintains a catalog of regional criteria and periodically files updates with NERC.



SERC facilitates the activities of the SERC Standards Committee, which was formed in February 2008 to provide oversight of the standards development process within the region. The Standards Committee originally was comprised of the officers of SERC's technical standing committees. However, membership was expanded in December 2008 to include at-large members to ensure all stakeholder sectors are represented on the committee.

Since January 2007, SERC has taken the following steps to improve reliability standards development within the region:

- In April 2007, SERC assigned a full time Manager of Reliability Standards, whose sole responsibility is to support the development of regional reliability standards and the interaction of SERC stakeholders in the NERC standards development process.
- Formed a SERC Standards Committee and regional standards development process.
- Formed a SERC Registered Ballot Body with approximately 60 entities registered (without restriction regarding membership in SERC).
- In 2008 SERC presented updated information on Reliability Standards to stakeholders at five system operator workshops, three compliance seminars, four standing committee meetings and numerous WebEx sessions. Particular emphasis was placed on vegetation management, system protection, personnel training and other key standards. Stakeholders were able to gain a better understanding of the Reliability Standards and lessons learned from compliance implementation.
- SERC provided transparency to registered entities by publishing generic summaries describing how Reliability Standards were being applied by compliance staff in the field and common reasons for noncompliance. This effort has served to clarify the Standards and improve compliance within the region.
- SERC has initiated a procedure to allow registered entities to request clarification on how a Reliability Standard will be applied by compliance staff in the field. Any opinions are published publicly but are advisory only and do not modify or add to the mandatory aspects of the Standard itself. This procedure was approved in September 2008 and has been used to address approximately 40 requests for clarification to date.

**B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.**

Regional standards development is governed by the SERC Regional Reliability Standards Development Procedure ("Standards Process"), which was conditionally approved by FERC in April 2007 and approved in March 2008. SERC does not take any exceptions in its procedure with any of the essential criteria determined by NERC in the pro forma regional entity delegation agreement and SERC has complied with all FERC directives related to a regional standards development process.

The SERC Standards Process provides for openness, due process, and balancing of interests. Participation in SERC's Standards Process is open to all organizations or persons that are materially affected by the bulk power system in the SERC region. SERC does not require any financial fees for participation and strives to minimize participant costs through extensive use of



email, WebEx, and electronic postings to conduct as much business as possible with regard to standards development. All standards-related meetings are open to the public.

Each person or entity has the right to participate by expressing an opinion, having its opinion considered, and having the right to appeal. Notices of all meetings of the SERC Standards Committee and drafting teams are provided on the SERC website, at least seven days in advance. The site allows all interested parties to submit comments during the commenting period. SERC also provides an appeals process.

In anticipation of a first regional reliability standard on the subject of under-frequency load shedding coming to a ballot in 2009, SERC formed a registered ballot body in December 2008. The ballot body is open to all interested stakeholders and includes both members and non-members of SERC.

The SERC Standards Process provides for a balance of interests in the approval of standards. The ballot pool comprises seven sectors carrying twelve votes: investor-owned – 3 votes; federal/state – 2 votes; cooperative – 2 votes; municipal – 2 votes; merchant generator – 1 vote; marketer – 1 vote; and ISO/RTO/customer – 1 vote. A two-thirds supermajority weighted vote is required to approve a regional standard. Thus, no two segments can control a vote, and no single segment can veto an action.

Any requestor, whether a member of SERC or the registered ballot body or not, may propose a regional standard for development in accordance with SERC's Regional Reliability Standard Development Procedure, although no additional requests have been received to date.

**C. State Regional Entity's assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SERC has been fully compliant and effective in reliability standards development as described above. Given that SERC is focused on supporting development of uniform North American Reliability Standards and not regional differences, SERC's effectiveness in the area should not be measured by the number of regional reliability standards approved.

SERC does have plans to develop regional reliability standards as required by the NERC three-year plan and would consider development of other regional standards if a reliability need is identified. More importantly, SERC is effective in assisting stakeholders in the region engage in the NERC standards development process, as well as regional standards proposed in other regions outside SERC. SERC actively facilitates review and comments by technical committees.

Stakeholder feedback for SERC on the assessment survey appears to be mostly influenced by experience with the NERC standards process. For example, the two factors most highly rated – SERC has developed reliability standards that clearly indicate which owners, operators, and users must comply (rating of 1.61 with 18 respondents to Question 5) and the standards process has been open and inclusive (rating of 1.65 with 17 respondents to Question 9) – appear to reflect overall experience with NERC standards development. Likewise, the ratings on the other end of the spectrum (which is still in the positive range) also appear to be attributable to the NERC standards development results to date. Question 6 (rating of 2.38 by



16 respondents) indicates a neutral to moderate agreement that the standards provide a clear indication of level of performance. It would be difficult to attribute these views to the SERC process and standards, because SERC has not yet completed approval of a regional standard.

In Question 13 (rating of 2.77 with 22 respondents) stakeholders give a somewhat neutral response regarding provision of clear information regarding what level of performance is necessary to comply with reliability standards. This point is of interest because, although it is also referring to NERC Reliability Standards, this is an issue SERC has worked to address. SERC believes this rating can be improved by not only writing clearer standards, but also by providing clear, experience-based information on how standards are being enforced in the field.

**D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development.**

SERC has identified the following recommendations for further improvement:

- SERC will continue to support and expand the information available to bulk power system owners, operators, and users regarding what level of performance is necessary to comply with Reliability Standards. This information is to be provided through publication of non-confidential compliance audit and enforcement experiences and by responding to requests for clarification of standards.
- SERC will encourage a more robust technical review of proposed Reliability Standards within its technical committees and prepare comments to promote standards that improve reliability, provide greater clarity in the requirements, and are practical to implement.
- SERC will continue to expand the size and diversity of the SERC Registered Ballot Body.
- SERC will complete development of a Standards section on its web site.



### III. Organization Registration and Compliance Monitoring and Enforcement Program

#### A. Describe Regional Entity's activities and accomplishments in OR/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007. This description should emphasize quantitative information, e.g.: staffing; numbers of registered entities registered; numbers of workshops, seminars, training and education sessions, etc. conducted; numbers of compliance audits conducted and reports processed; numbers of other compliance processes conducted and processed, e.g., spot-checks, self-certifications, etc.; numbers of notices of violation issued and processed; numbers of mitigation plans processed.

As a regional entity, SERC implements the NERC Compliance Monitoring and Enforcement Program ("Compliance Program") to monitor, assess, and enforce compliance with Reliability Standards by bulk power system owners, operators, and users registered in SERC. SERC's Compliance Program is responsible for conducting all compliance assessments, recommending confirmation or dismissal of violations, and recommending penalties and sanctions.

SERC does not provide any functions of a bulk power system owner, operator or user and is independent from the entities it oversees for compliance. Employees are required to complete an annual conflict of interest form and SERC's policy is that employees have no financial interest in any entity in the energy sector, except that retirement plans from previous employers may be addressed through recusal. This positive view of SERC's independence as a regional entity is borne out by stakeholder ratings in the assessment survey (rating of 1.52 by 21 respondents to Question 63 and 1.61 by 18 respondents to Question 65).

The SERC compliance staff makes the initial determination of alleged violations and proposes appropriate penalties and sanctions in accordance with the NERC Compliance Monitoring and Enforcement Program and the Penalties and Sanctions Guidelines. The staff evaluates each alleged violation and recommends an appropriate sanction and penalty.

The SERC Board of Directors has delegated responsibility for oversight of the SERC Compliance Program to the Board Compliance Committee. The Board Compliance Committee provides final confirmation of all alleged violations and proposed sanctions and approves settlements recommended by the SERC compliance staff for submittal to NERC and FERC for final approval. The Board Compliance Committee also acts as the hearing body responsible for resolving any disputes related to a violation or a proposed penalty or sanction or a remedial action directive.

Compliance Advisory Groups, consisting of stakeholder technical experts across all sectors are available for each of the major disciplinary areas (operations, planning/engineering, and cyber security) to advise the compliance staff and the Board Compliance Committee as needed, but do not have a role in recommending or approving any compliance actions and are not privy to confidential compliance information regarding any specific case.

SERC's compliance staff is divided into an enforcement branch and an audit branch. SERC audit staff is charged with conducting compliance audits and spot checks of all registered entities and identifying possible alleged violations. The group maintains a long-range compliance audit plan that ensures compliance audits are conducted for each applicable registered entity within the SERC Region in accordance with a predefined frequency. Qualified



senior SERC staff leads each on-site compliance audit team, composed of a combination of SERC auditors and in some cases volunteer industry subject matter experts. The teams prepare audit reports with their findings and recommendations, including the identification of any possible alleged violations. Specific lessons learned from each audit are factored into the audit program to promote continuous improvement. Audit staff also provides technical expertise in support of the compliance enforcement staff.

SERC's compliance enforcement group evaluates all possible alleged violations of Reliability Standards, whether identified in an audit, a self-report, complaint, or other source, and determines whether the facts and circumstances warrant further action as an alleged violation. For each possible alleged violation identified by any of the eight monitoring methods set forth in the CMEP, the staff creates a unique tracking number and associated docket to record the activities and documents and completes a thorough assessment of the alleged violation. The staff informs the affected entity of the assessment of an alleged violation. Once the assessment is completed, the staff will formally notify the entity of its findings regarding the violation and any applicable proposed penalties or sanctions. The enforcement staff may also engage in settlement negotiations with the entity.

Once a confirmed violation is established, by the registered entity either accepting the violation or not responding to the Notice of Alleged Violation; or if the registered entity and enforcement staff agree on terms of a settlement agreement, the confirmed violation or settlement agreement is submitted to the Board Compliance Committee for approval, along with any proposed penalty or sanctions. If, prior to establishment of a confirmed violation or execution by the entity of a settlement agreement, the entity challenges the findings and requests a hearing, the enforcement staff would prosecute its case before the Board Compliance Committee, who would then become the hearing body. Hearings are conducted at SERC under the supervision of a qualified, independent hearing officer hired by SERC. SERC has retained the services of three hearing officers, but as of June 2009 has not entered into a hearing proceeding.

The enforcement staff is also responsible for evaluating and accepting mitigation plans. All mitigation plans involving High Violation Risk Factor requirements and non-documentation related Medium Violation Risk Factor requirements must be accepted by the Board Compliance Committee prior to submittal to NERC. The enforcement staff monitors progress of the entity in achieving the mitigation plan including review of supporting material submitted by the entity to substantiate closure.

Once all proceedings have been completed, the compliance enforcement staff files the case with NERC for review and approval, subject to final approval by FERC.

Compliance enforcement staff is responsible for maintaining the current list of registered entities within SERC and for administering other monitoring processes including self-reporting, complaints, and self-certifications.

Since the early stages of preparing to become a regional entity, SERC recognized the importance of the compliance function at the regional level and has continuously maintained approximately half of its staff in the compliance area during 2007 and 2008. At the end of June 2009, SERC has employed 22 personnel within the Compliance department. This emphasis in compliance staffing has placed SERC in the position of being able to make significant headway in resolving the violations discovered in the first two years of operation.



## **Compliance Monitoring Activities 2007 through May 31, 2009:**

### **January 1, 2009 through May 31, 2009**

- SERC has approximately 225 entities on the NERC Compliance Registry.
- SERC processed 2,379 self-certifications in early June 2009.
- SERC has processed 105 data submittals for BAL-001 (CPS).
- SERC has processed 14 data submittals for BAL-002 (DCS).
- SERC conducted 19 audits in 2009. Eight audits were stand-alone audits of SERC registered entities. Three audits were conducted in conjunction with multiple regions for entities registered in SERC and in one or more other regions. One audit was conducted in conjunction with another region for an entity registered in that region. Seven audits were conducted by other regions in multi-regional audits of entities registered in SERC and the other regions. Between 3 and 38 standards were reviewed at each audit for a total of 278 Standards and 1798 requirements for all audits conducted in 2009.
- SERC conducted CIP spot checks of four entities (Table 1 entities per CIP Standards Implementation Plan), covering the 13 requirements of six Standards for which compliance was mandatory and enforceable as of July 1, 2008.
- SERC has held two compliance seminars; total attendance was 182 participants.
- SERC held compliance open forum web conferences on January 27, 2009 and April 27, 2009. Approximately 100 stakeholders attended each conference. The purpose of each open forum was to provide SERC registered entities with an update on the Compliance Monitoring and Enforcement Program (CMEP) including recent developments, lessons learned and key messages. An update on the Audit and Spot Check program, reporting of vegetation, 2009 filing dates, and mitigation plan content, and mitigation plan evidence were also discussed at the January conference. CIP Standards, PRC-005 lessons learned and the multi-regional entity audit process were highlighted in April.

### **2008**

- SERC processed 5,505 self-certifications.
  - 860 self-certifications were related to CIP-002 to CIP-009.
  - 4,645 self-certifications were related to all other Reliability Standards.
- SERC processed 361 data submittals for BAL-001 (CPS).
- SERC processed 60 data submittals for BAL-002 (DCS).
- SERC conducted 49 audits within the region and 2 joint audits with other regions. Between 6 and 49 standards were reviewed at each audit for a total of 899 for all audits in 2008.
- SERC conducted spot checks of four standards at five entities.
- SERC conducted CIP spot checks of four entities (Table 1 entities per CIP Standards Implementation Plan) covering the 13 requirements of six Standards for which compliance was mandatory and enforceable as of July 1, 2008.



- SERC held three compliance seminars; total attendance was 385 participants.
- SERC held a compliance open forum web conference on October 29, 2008, attended by approximately 125 stakeholders. The purpose of the open forum was to provide SERC registered entities with an update on the Compliance Monitoring and Enforcement Program (CMEP) including recent developments, lessons learned and key messages. An update on NERC and Regional Reliability Standards was also provided.
- SERC conducted 2 on-site Compliance Program orientation workshops for newly registered entities, attended by approximately 30 individuals from 12 new registered entities.
- SERC conducted 16 web-based training sessions explaining the process for submittals of self-certifications and other required data, attended by approximately 300 individuals from 130 registered entities.
- SERC audit staff and several members of compliance enforcement staff participated in NERC web based training for auditors, attended the lead auditor training, and also were trained by an outside firm presenting supplemental auditor training techniques used by financial auditing firms. An investigations training session conducted by FERC was also attended by many of the SERC compliance staff.
- SERC conducted one Compliance Violation Investigation and participated in a second Compliance Violation Investigation led by another region.
- SERC conducted a survey of its registered entities to solicit feedback regarding SERC's implementation of the CMEP. 68 registered entities (30%) took advantage of the opportunity and provided valuable feedback. SERC was rated 4.2 overall on a 5-point scale.

## **2007**

- SERC processed 3,089 self-certifications, which included the CIP survey results.
  - 351 self-certifications were CIP-002 to 009 related.
  - 2,738 self-certifications were related to all other Reliability Standards.
- SERC implemented a portal-based interface for electronic submittal of registered entity status reports on the CIP-002 to CIP-009 Standards.
- SERC performed 31 onsite audits within region and 3 joint audits with other regions. Between 6 and 28 Standards were reviewed at each audit for a total of 377 standards reviewed for all of the audits.
- SERC initiated a program to survey the audited entity for feedback on the process after each audit. This program has been successfully continued in 2008 and 2009.
- SERC collected 1,828 data submittals, including the following:
  - 357 CPS data submittals.
  - 60 DCS data submittals.
- SERC conducted one compliance investigation.
- SERC did not conduct any spot checks in 2007.





- SERC conducted three compliance seminars with a total attendance of 355 participants.

### Summary of Compliance Enforcement Actions

Summary of the number of violations assessed and processed between January 1, 2007 and May 31, 2009.

Violation Timeframe	Number of Possible Violations Reviewed	Number of Violations with Sufficient Basis	Number of Possible Violations Dismissed or Unenforceable	Notices of Alleged Violation Filed (#Violations)	Notices of Confirmed Violation or Settlements submitted to NERC (#Violations)	Number of Violations Complete, filed with FERC
2007 Pre-June 18	144 <sup>3</sup>	71	73	71	N/A	(9 Violations moved to Post-June 18 Status)
2007 Post-June 18	137	84	53	84	84	78
2008	175	128 <sup>4</sup>	44	8	46	17
January 1 to May 31, 2009	35	4	6	0	0	0

Summary of the number of mitigation plans processed through May 31, 2009.

Mitigation Plan Timeframe	Number of Violations with Mitigation Plans Submitted	Number of Violations with Mitigation Plans Accepted and Approved by SERC and NERC	Number of Violations with Mitigation Plans Certified as Complete by Registered Entity	Number of Violations with Mitigation Plans Verified as Complete by SERC
2007 Pre-June 18	71	70	70 (9 Violations moved to Post-June 18 Status)	69
Post-June 18, 2007	84	84	84	84
2008	113	98	105	103
January 1 to May 31, 2009	9	4	0	1

<sup>3</sup> Violations were reported by standard and can include multiple requirements for Pre-June 2007 violations.

<sup>4</sup> 101 violations are presently in settlement discussions.



**B. Describe how the Regional Entity has the ability to enforce Reliability Standards and to provide for an adequate level of bulk power system reliability in its region.**

SERC is following the requirements as defined by the CMEP, Rules of Procedure (ROP), and the delegation agreement between SERC and NERC and has used these documents to create the framework for auditing and enforcement of Reliability Standards.

SERC has created and implemented an audit program designed around the required three and six year audit cycles and remains 100% on schedule with this plan. SERC uses the complete list of NERC-approved Actively Monitored Standards and Requirements as a minimum audit scope. SERC has also required all compliance employees, not just the auditors, to complete the NERC required training classes for auditors so that all employees have an understanding of the auditing process.

The enforcement group processes alleged violations originating from audits, spot-checks, self-certifications, complaints, self-reports, and Compliance Violation Investigations (CVIs). This includes managing settlement negotiations and hearings associated with contested violations. The SERC enforcement program is also responsible for investigating possible Reliability Standards violations arising from system events, self-reports, and complaints.

SERC also fully participates in multi-region forums to share information related to best practices. These include the Regional Entity Compliance Implementation Group (RCIG) and associated working groups. The RCIG's main purpose is to foster cooperation and coordination, and improve consistency between the regions. SERC also participates in the Regional Entities Management Group whose members are the chief executives of each region and oversee all program areas, including compliance and standards development.

SERC conducts supplemental training for auditors. All compliance staff go through weekly training sessions on process and the Standards.

**C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards.**

SERC is committed to the following five (5) guiding principles:

- Independence
- Ethics and integrity
- Inclusiveness
- Fairness and openness
- Organizational effectiveness and efficiency

SERC strives to be fair, unbiased and balanced in its actions and approach to enforcing Reliability Standards and strives to remain above reproach with regard to independence and ethical issues. SERC's internal procedures incorporate these concepts. To provide a second level of checks and balances, SERC requires that all violations be reviewed and verified by a group other than the group that initially identified the possible violation. It was partially for this



reason that the enforcement group was separated from the audit group. In addition, all violations and penalties are reviewed by the Director of Compliance prior to presentation to the Board Compliance Committee for approval.

All SERC employees and consultants must identify all potential relationships to or conflicts with market participants or registered entities and annually sign a conflict of interest form verifying their compliance with SERC's Code of Conduct.

SERC follows the CMEP requirements to provide biographies of all potential auditors prior to an audit to allow the subject entity to review these biographies and object to any potential or perceived conflicts that could impair fairness or impartiality. SERC also internally bars any employee from working on any compliance work related to an entity for which they have had a relationship for at least a one-year separation period.

SERC has implemented a Compliance Hotline to allow anyone to report compliance or ethics complaints related to SERC, its employees or consultants, or a registered entity. To date SERC has received no complaints from the Compliance Hotline and has received no complaints of any kind regarding any failure of fairness or impartiality.

At the end of every audit, SERC provides the NERC Questionnaire to allow the audited entity to directly report to NERC any concerns with fairness, objectivity or balance, in addition to other quality measures, with respect to how SERC carries out its auditing function.

**D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SERC's effectiveness has continuously improved over time through the enhancement of our internal processes, refinement in our organizational structure, the growing maturity of the NERC Reliability Standards, and the addition of talented staff. Added to this is our concerted effort to improve our communications with the other regions, NERC, and the registered entities. This has resulted in greater efficiency and fewer misunderstandings.

SERC was an early innovator in the use of settlements to address violations. Settlements have provided an effective means of detailing plans for the entity to address the violation and take further actions to improve reliability and compliance, beyond simply correcting the violation.

SERC developed and conducted a mock compliance hearing using the hearing procedures and included participation by NERC and other regions as a learning experience.

SERC developed a comprehensive set of internal procedures and instructions to guide staff in implementing the CMEP, including electronic tools and forms.

Since 2005, SERC has been an innovative leader in the development of the SERC Portal and the use of electronic forms for the submittal and management of compliance data. In 2008, five more regions and NERC adopted the SERC Portal to meet their compliance information management needs. SERC has facilitated the startup of a consortium to share resources and expertise in the continuing development of electronic tools to improve compliance information management.



SERC has championed providing transparency to registered owners, operators and users so that they can better understand what the expected compliant behavior is. SERC has posted lessons learned from field experience in the compliance program.

SERC successfully registered bulk power system owners, operators, and users. Registration resulted in more than a fivefold increase in the number of entities involved in reliability activities but with very few challenges. To date, one appeal of a SERC recommendation on registration was upheld by FERC.

SERC has been a leader in completion of compliance actions. SERC was able to submit 70 of its 2007 violations for approval by FERC in the July 3, 2008 Order. As of May 31, 2009 SERC Notices of Penalty addressing a total of 95 violations have been approved by the Commission.

SERC has initiated several process improvements to maintain quality, process remaining outstanding violations, and increase efficiencies of future compliance actions as follows:

- A structured work management process is used to review compliance actions to drive them efficiently through to the next processing step, including final regional approval. The process is being refined and metrics applied to further enhance productivity.
- SERC initiated a posting room within the SERC Portal for the secure posting of all documents associated with an audit, enabling the registered entity and all audit team members and observers to view documents prior to the audit.
- SERC initiates a WebEx with a registered entity prior to an audit to review documentation requirements and the flow of the audit.
- Final regional approval of all compliance actions is made by the SERC Board Compliance Committee (BCC). The BCC has delegated certain approvals to compliance staff to allow the BCC to focus on issues with the most impact.
- Members of SERC staff have been designated as Subject Matter Experts (SMEs) for specific sets of Reliability Standards. Members of compliance enforcement staff have been assigned as "process owners" for each of the key enforcement processes (violation determination, mitigation plans, penalty determinations, settlements, and reporting). A single point of contact (SPOC) from enforcement staff coordinates compliance actions with the applicable entity. Compliance staff SMEs are engaged to perform a peer check of mitigation plan closeout documentation to help ensure adequacy of mitigation plan performance.
- Quality controls and efficiency methods (checklists, peer reviews). Work is ongoing to improve quality and consistency of reviews, as well as improve efficiency in processing. Currently checklists and other tools are applied to support efficient processing.
- SERC has developed a compliance document management procedure and has contracted for development of an automated system.



Stakeholders provided the following positive feedback regarding the SERC compliance program in the ERO assessment survey:

- Staff conducts audits in a professional, thorough, efficient, and timely manner (rating of 1.38 by 16 respondents to Question 15 and rating of 1.93 by 15 respondents to Question 17).
- SERC encourages registered entities to conduct internal self-assessments and to self-report possible violations (rating of 1.43 by 23 respondents to Question 18).
- The compliance program covers all requirements and does not leave any gaps in monitoring (rating of 1.48 by 21 respondents to Question 12).
- SERC provides prompt and reasonable notice of audits and possible compliance violations (rating of 1.53 by 17 respondents to Question 14, rating of 1.59 by 17 respondents to Question 16 and rating of 1.80 by 15 respondents to Question 23).
- SERC is effective in ensuring timely mitigation of a possible violation (rating of 1.54 by 13 respondents to Question 21).

One area for improvement indicated by the survey results appears to be applicable to NERC and all of the regions together. That is making the penalties and sanctions understandable and clearly correlated to the seriousness of the offense (rating of 2.50 by 14 respondents to Question 19 and rating of 2.57 by 14 respondents to Question 20). Both sets of responses are only slightly better than neutral. This stakeholder perception should improve as more completed compliance actions are approved by the Commission and made public by NERC.

#### **E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.**

SERC believes that the best way to improve effectiveness of the CMEP is for NERC and the regional entities to continue to consistently communicate and coordinate regarding new issues or confusion that may arise in the field. Even though the Reliability Standards have been enforceable for 24 months, they are still relatively new for both registered entities and the auditors.

SERC is working with registered entities to promote the concept of increased self-assessments by the entities to promote reliability and compliance. This is expected to also help the entities be more complete in the provision of evidence of compliance, which is an area for continuing improvement.

SERC intends to continue using settlements as a means of improving compliance programs within the region.

SERC recognizes the need to further educate registered entities with regard to what constitutes an appropriate and effective mitigation plan.

Continuing development and integration of the Compliance Portal, which is in process through the interregional consortium, should also help to continuously improve efficiency and effectiveness of the Compliance Program.



Remaining outstanding and backlogged work related to possible alleged violations and mitigation plans are projected for completion by close of the second quarter of 2009, with the exception of closeout reviews for a few longer duration mitigation plans.

SERC was a key contributor in the development of a pro-forma settlement agreement, working in conjunction with NERC and the other regions. SERC is also working with NERC and the other regions to develop and pilot an expedited settlement process for lower risk violations. Work is ongoing to ensure the process meets FERC's expectations for level of detail in the record of enforcement actions and that the process is applicable to a sufficient set of violations so as to be effective.

SERC needs to improve ongoing review and maintenance of the compliance registry.

A document management system is being pursued. It is estimated that a document management system would be in place by the third quarter of 2009 and will facilitate processing of violations, and development and retention of the record of enforcement actions.

One of the challenges SERC has faced is the high volume of materials to be presented for the SERC BCC. SERC has taken steps to be more efficient in giving the BCC the key information needed for effective decision-making.



### **III. Other Program Areas**

#### **A. Reliability Improvement Program**

##### **1. Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.**

Formerly this function was the Reliability Readiness and Evaluation Program. In 2009, SERC's Reliability Improvement Program continues to monitor implementation of reliability improvement recommendations. Recommendations may be derived from event analyses and apply to individual entities, a cross section of entities, or all entities registered within the region. Actions may also be identified in the form of NERC alerts. SERC's goal is to enhance reliability by facilitating implementation of recommendations and required actions and by tracking and reporting completion. SERC has established an online recommendations tracking tool to facilitate the data collection and reporting on completion of recommendations.

SERC conducts several functions that are very closely related to reliability improvement but are presented separately in the SERC business plan to be consistent with NERC's division of functions. In addition to the reliability improvement function described above, SERC performs a situation awareness function by reporting normal daily conditions on the bulk power system and reporting elevated risk conditions when they occur. SERC also coordinates information in response to an event on the bulk power system. SERC conducts event analyses as needed, in coordination with applicable registered entities, NERC, and FERC.

In 2007, SERC supported NERC in 11 readiness reviews and one in 2008 as the program focus shifted. SERC also certified MISO as a balancing authority.

##### **2. State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SERC needs to continue developing and improving its recommendations tracking tool and to facilitate adoption of the tool by NERC and others as part of the Portal implementation. This recommendation is supported by stakeholder inputs in the survey (rating of 2.56 by nine respondents to Question 9).

#### **B. Training, Education and Operator Certification**

##### **1. Describe Regional Entity's activities and accomplishments in training, education and operator certification since January 1, 2007, including discussion of improvements in this area.**

Historically, SERC has taken a proactive role in the advancement of technical personnel training and development. Through its annual program of seminars and workshops, SERC has promoted improved performance in planning, operation and critical infrastructure protection of the bulk power system. SERC has a reputation for facilitating and providing forums for member interaction and exchange of continuing education activities, such as "lessons learned", emergency drills, and inter-area event simulations.



SERC's training services staff works closely with the appropriate SERC and NERC committees to facilitate the development of effective technical personnel training programs for SERC members and SERC staff in the areas of system operation and operator certification, planning, audits, and compliance. The program methods include needs analyses, identification of performance gaps, design of behavioral learning objectives, development of training materials, program implementation, and evaluation. Additionally, the training function works to assist SERC member companies in providing instructors who are qualified and prepared to deliver the training programs, in accordance with systematic instructional design procedures. The specific continuing education requirements of the members form the basis of current topics, agendas, and venues for SERC-sponsored training seminars and workshops.

To meet its goals, the SERC training program relies heavily on the technical expertise and training experience of SERC committee members. It is expected that the System Operator Subcommittee of the Operating Committee will continue to make a significant contribution to both the development and delivery of SERC training activities, as they have done in the past.

The number of workshops, seminars, training, and education sessions conducted since January 1, 2007 is:

- CIP workshops on how to implement the CIP standards – 2
- Operator training workshops – 13 (4 in 2007 and 5 in 2008 and 4 in 2009)
- Compliance seminars – 9 (3 in 2007 and 4 in 2008 and 2 in 2009)
- Train-the-trainer workshops – 3 in January 2009

SERC has automated the recordkeeping for system operator certification within the region. A database was developed and populated with approximately 1000 operator records dating to April 2006. The database has been in operation with full availability since June 1, 2008.

**2. State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Over time SERC has added additional topics to its training program, such as the recent CIP Workshop, and has provided greater depth to our traditional Reliability Standards workshops through the greater use of panel sessions and lessons learned segments.

SERC's operations training seminars continue to run at full capacity with some attendance from industry participants from outside our region, due to the quality of the seminars.

SERC strives to support and speak at seminars in the SERC region held by other organizations, in order to provide the most information to the widest possible group of people.

**3. State any proposals of Regional Entity to improve its effectiveness in training, education and operator certification.**

SERC will continue to request, review, and incorporate helpful feedback from stakeholders regarding SERC's training, education, and operator certification programs. SERC will also





modify these programs as needed to incorporate any changes to NERC Reliability Standards or procedures.

### **C. Reliability Assessment and Performance Analysis Program**

#### **1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.**

As a regional entity, SERC collects and compiles data from users, owners and operators of the bulk power system in the region, and submits that data to NERC. In addition, SERC conducts assessments of reliability and adequacy of the region's bulk power system and reports its findings to NERC. SERC also prepares special reliability assessment reports on regional issues as conditions warrant or as requested by the SERC Executive Committee.

In January 2008, SERC separated the Reliability Assessment Program from Reliability Services in recognition of the importance of this function. A Director of Reliability Assessment was hired to lead the program.

This program is coordinated by SERC staff and makes extensive use of stakeholder volunteer experts in SERC's Reliability Review Subcommittee (RRS). The supporting inter-regional studies for the reliability assessments are performed by regional studies groups (Long-Term Power Flow Study Group, Near-Term Power Flow Study Group, Dynamics Study Group, and Short Circuit Database Working Group). Inter-regional and interconnection-wide coordination is accomplished through the Eastern-Interconnection Reliability Assessment Group (ERAG). An ERAG Management Committee (MC) oversees the development of an annual series of power-flow and dynamics base-cases by a Multi-regional Modeling Working Group (MMWG). The ERAG MC and MMWG are each comprised of two representatives from each region. These ERAG-MMWG models form the basis from which most wide-area interconnected system studies are performed. Funding for ERAG-MMWG activities is allocated across the six regional entities in the Eastern Interconnection based on Net Energy for Load (NEL).

One of the primary charges of the SERC RRS is to annually perform reliability assessments. These assessments are done in the form of seasonal assessments of the SERC Region in support of the NERC Reliability Assessment Subcommittee's Summer and Winter Reliability Assessments and a ten-year reliability assessment of the SERC region, from which a condensed version is also created in support of the NERC Long-term Reliability Assessment. The RRS has also prepared a separate annual SERC ten-year reliability assessment report since 1979. The report includes (both on a regional and sub-regional basis) a resource adequacy assessment, a transmission assessment, and a discussion of significant reliability issues impacting the SERC Region. The DRS provides input to the RRS for this report on pertinent stability-related reliability issues and develops stability-related reliability assessments for the sub-regions and region. While the report has evolved over the years, it has generally had a format similar to the NERC Reliability Assessment Subcommittee Long-term Reliability Assessment report. This report is presented annually to both the SERC Engineering Committee and the SERC Executive Committee. This has led to a variety of SERC Board initiatives over the years addressing reliability in the SERC region.



The SERC DCTF's primary function is to provide reporting parties' required data per the NERC reliability assessment requests. Data collection activities are carried out on the SERC Portal. The SERC Portal is used to specify data requirements and due dates for each data collection effort. The SERC staff maintains and manages areas of the SERC Portal containing reliability data requirements. Additional communication from the SERC staff to the DCTF is accomplished via announcements on the Portal, email, phone conferences, and SERC Data Collection Task Force meetings. The SERC staff aggregates the data, performs data checks and analyses, and compiles the data for the Region's reliability assessments data submittals.

**2. State Regional Entity's assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SERC has significantly improved in its effectiveness in this area. In 2008, as staff was added, SERC became much more proactive in assessing and addressing reliability performance issues. As with most new programs, a great deal of effort has gone into defining how to best work with SERC stakeholders to build this program and to increase SERC's ability to affect change.

SERC also made significant strides in 2008 with regard to automating data collection and validation through the use of the SERC secure portal.

In 2008 SERC completed a review of resource adequacy metrics used across various jurisdictions within the region.

SERC stakeholder comments on the ERO assessment survey lend support to the notion that SERC is meeting expectations in this area:

- Rating of 2.00 on Question 32 by 13 respondents indicating SERC is effective in performing accurate and independent assessment of future reliability and adequacy.
- Rating of 2.13 on Question 34 by 15 respondents indicating SERC effectively communicates reliability assessment results.

**3. State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.**

SERC is continuing to develop concepts and methods for reliability performance analysis and assessment (see rating of 2.25 on Question 36). NERC's initiation in 2008 of the Transmission Availability Database System (TADS) will provide a source of data in future years to improve the metrics for transmission performance. SERC is exploring concepts in this arena.

**D. Situational Awareness**

**1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

SERC does not provide a reliability coordinator function.



For the purpose of consistency with the NERC budget and business planning process and to facilitate comparison with other regional entities, SERC has incorporated situation awareness and critical infrastructure protection into its business plan. However, in practice, SERC implements these functions separately. The situation awareness role in SERC is more closely tied to bulk power system operations; and SERC uses staff and groups expert in operations for this function, including the SERC Reliability Coordinator Subcommittee. Critical infrastructure protection is aligned in practice with SERC's Critical Infrastructure Protection Committee, one of SERC's four standing committees.

SERC maintains effective situational awareness and helps ensure that Reliability Coordinators, Balancing Authorities, Transmission Operators and appropriate regulatory personnel are aware of situations as needed to maintain timely awareness of conditions that present an elevated risk to the reliability of the bulk power system. SERC accomplishes effective awareness by working closely with Reliability Coordinators in the region and through use of the SERC Hotline during significant events or adverse conditions. SERC also achieves situation awareness in the region through effective use of publicly available information as well as NERC situational awareness tools including the System Data Exchange (SDX), the Reliability Coordinator Information System (RCIS), and the Central Repository for Security Events (CRC).

This program also includes resources to lead or participate in event analyses as may be required. Event analysis presents a highly uncertain work demand on staff, as the number of events involving SERC, if any, can vary; yet each analysis is an extensive commitment of resources.

SERC has established and maintains a SERC Hotline for use by Reliability Coordinators, Balancing authorities and Transmission Operators during critical situations. SERC maintains the procedures and conducts a monthly test of the hotline.

SERC also implemented a situation awareness reporting line in July 2007. This allows entities to report events or conditions on their system by phone message or email. Key SERC staff are immediately notified of any such reports by instant message forwarding.

SERC has developed emergency response plans and communications plans for use within the region. SERC has developed procedures for event analysis that shares best practices with NERC and the other regions.

SERC, working with NERC and the other regional entities, has developed a daily report for situation awareness used within the region. The daily situation report is reviewed with SERC management and key staff and provided to NERC and FERC each morning.

**2. State Regional Entity's assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SERC has one full-time staff person dedicated to situation awareness and one dedicated to critical infrastructure protection. The situation awareness staff is effective in developing a daily situation report addressing conditions on the bulk power system, and also in providing an initial evaluation of system incidents or events. The situation awareness staff has direct access to NERC and reliability coordinator information systems to monitor activities. SERC has initiated



both telephone and email based reporting lines for the submittal of DOE-417's and other incident reports. Entities within the region have demonstrated they are very reliable in reporting incidents to SERC to maintain the region's awareness of conditions on the bulk power system.

SERC regularly reviews these incident reports and works with the entities involved to determine the impact on the bulk power system. SERC reports the results of its analysis to NERC and FERC in a timely manner and addresses any questions they may have.

SERC demonstrated its situation awareness capability for approximately one continuous month following Hurricanes Gustav and Ike. SERC staff maintained continuous awareness of the impacts of the storms and the restoration efforts that followed in the weeks after. SERC situation awareness staff operated on seven-day weeks during this period.

Stakeholder responses to Questions 42 and 49 indicate this as an area for continued improvement, not just at SERC but more broadly across NERC and all regions.

### **3. State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.**

SERC is working closely with FERC staff, NERC, and other regions to develop a near-real-time situation awareness capability. SERC has established a situation room in its office and plans to participate in the FERC-directed project. SERC anticipates having bulk power system status information from the seven Reliability Coordinators in the region available for display with approximately 90-second updates.

SERC will use this information to remain aware of conditions on the bulk power system, conduct assessments of reliability impacts of incidents or events, and prepare reports to NERC and FERC.

SERC has collected system maps from entities within the region and particularly relies on sub region maps. However, SERC has a need to improve its ability to visualize the bulk power system through integrated region-wide maps.

SERC has an opportunity to continue improving communications following system events or natural disasters. Experience during 2008 indicated that entities involved typically are bombarded by various state and federal governmental agencies for information. Involvement by SERC and NERC simply add to the confusion. There is an opportunity to better define communications templates and responsible contacts that can provide more rational reporting of information without increasing the burden on the entities involved.

## **E. Critical Infrastructure Protection**

### **1. Describe Regional Entity's activities and accomplishments in Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

SERC's Critical Infrastructure Protection Program mirrors that of NERC, but with a focus on regional issues. The program is supported by the SERC Critical Infrastructure Protection Committee. The program will continue outreach to the industry by providing 'how to' workshops



and forums within the region. SERC staff and stakeholder representatives also actively participate in the NERC CIP program and CIPC.

The CIP resources here are distinct from those in the Compliance Program. The role here is focused on improvement and assistance, while the Compliance Program CIP resources are focused on compliance monitoring and enforcement.

In recognition of the importance of CIP in the SERC region, on June 5, 2008 the SERC Executive Committee directed the following initiatives:

1. For the purpose of verifying registered entity self-certifications and self-reports regarding cyber security standards CIP-002 to CIP-009, the Compliance Program initiated a program to spot check a subset of the self-certifications during the period from July 1, 2008 to July 1, 2009.
2. SERC Reliability Services Program initiated tracking of work to address the Aurora vulnerability by adding this as a recommendation in the Recommendations Tracking Program of the Portal.
3. SERC developed a contact list for all registered entities within the region for the purpose of communicating security-related alerts.
4. SERC accelerated the hiring of a highly qualified CIP Manager from January 2009 to “as soon as possible within 2008”.
5. SERC took the lead in forming an interregional coordination group with a representative from the staff of each region (and NERC) to coordinate CIP activities.

Additionally, at its October 2008 meeting, the SERC Board of Directors directed that SERC conduct a pilot review of risk-based methodologies, critical asset lists, and critical cyber asset lists. SERC conducted nine reviews in the first quarter of 2009.

**2. State Regional Entity’s assessment of its own effectiveness in Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SERC has been effective in communicating CIP issues to registered entities. SERC has conducted two CIP workshops within the region. SERC successfully completed the first cycle of self-certifications to the CIP-002 to CIP-009 standards in July 2008 and achieved 100% participation by required entities.

SERC does not perform any operational functions and has determined that it does not have any critical cyber assets. However, in the interest of assuring business continuity and protecting sensitive information that may be in SERC’s possession, SERC has instituted security measures within its offices that are comparable to the applicable requirements in CIP-003 to CIP-009 as a matter of good practice.

In the stakeholder survey, feedback was positive regarding SERC’s role in support of CIP:

- Rating of 1.73 by 11 respondents to Question 45 regarding SERC’s role as a leader and facilitator in the CIP area.



- Rating of 2.0 by 12 respondents to Question 46 regarding SERC's role in disseminating CIP alerts and sharing information.

### **3. State any proposals of Regional Entity to improve its effectiveness in Infrastructure Security.**

Like other regions and NERC, SERC is working on improving the communication and tracking of responses to security alerts.

SERC continues to work on procedures for allowing SERC staff to perform their delegated responsibilities while protecting sensitive information. Of particular challenge is the need to retain audit and compliance records for which evidence of compliance can itself be sensitive information.

#### **F. Technical Committees and Member Forums**

A hallmark of SERC's mission since its formation in 1970 has been its member-driven focus, relying on the technical expertise of volunteers from its member organizations to lead its technical committees. Participants in SERC committees and subgroups total more than 400 individuals, many of whom also provide volunteer technical support at the NERC level. As the regional entity, SERC will continue to promote a high level of participation by the best technical experts the region has to offer.

The SERC Operating Committee (OC) provides a forum for the discussion and resolution of operating reliability issues within the SERC Region and provides a mechanism for the coordination of activities in the area of operations. The purpose of the OC is to promote the reliability and security of the bulk power system. The OC achieves this purpose by actively participating in the NERC and regional standards development processes, evaluating system performance and events, developing recommendations to improve reliability, developing training and drills, and developing technical references (e.g., guidelines, procedures, white papers). The Operating Committee has created several subcommittees to provide technical assistance and advice on a continuing basis in specific areas of operations. As an example, the OC sponsored a SERC system restoration drill in May 2008, a system restoration tutorial by WebEx in April, 2009 and is planning another, more comprehensive drill to be conducted later in 2009.

The purpose of the Engineering Committee and its associated subgroups is to promote the reliability and adequacy of the bulk power system. The EC develops stakeholder inputs to the SERC reliability assessments, actively participates in the NERC and regional standards development processes, evaluates system performance and events, develops recommendations to improve reliability, and develops technical references (e.g., guidelines, procedures, white papers).

The purpose of the Critical Infrastructure Protection Committee is to promote the advancement of the physical and cyber security of the bulk power system, through the development of SERC Regional Reliability Standards and other physical and cyber security documents (e.g., guidelines, procedures, white papers). It serves as an expert advisory panel in the areas of physical and cyber security; establishes and maintains an information reporting procedure; provides a liaison with state government agencies; and conducts forums and workshops related to Critical Infrastructure Protection.



#### **IV. Budgeting**

##### **1. Describe Regional Entity's activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.**

SERC has established a finance group comprised of a manager of finance, who is a former finance auditor, and an accountant. The current staffing allows for appropriate financial controls and the necessary expertise for budgeting and finance.

Since 2007, SERC has taken several steps to improve its ability to develop accurate budgets. SERC has implemented an online timesheet system that allows allocation of staffing costs to various activity codes in the NERC chart of accounts used in the budget process. Expense reports likewise are entered using an online system and provide cost code tracking. All other expenses are entered into the SERC accounting system at point of entry. This automation has allowed SERC to track costs precisely and to use the resulting reports to both control costs and develop accurate forecasts of future expenses.

Concurrent with its move from Birmingham to the Charlotte office, SERC converted from a paper-based filing system to all-electronic record keeping. This switch and improved automation allow SERC to have better access to files and records and apply historical information for better forecasting.

As a result of the growth of the organization and new reporting requirements from becoming a regional entity, SERC switched from an in-house accounting system to a commercially developed accounting system. SERC also initiated a finance and controls procedure.

To improve the planning and management of payroll expenses, SERC contracted a market-based study of SERC's compensation and benefits, including human resource practices. SERC has used this information to guide planning and budgeting of payroll and benefits to ensure SERC is competitive yet is able to effectively manage costs. SERC has implemented the improvements to benefits and human resource procedures as detailed in the reports by the external contractor.

SERC makes it a priority to diligently and effectively communicate with NERC regarding all required financial reports. SERC will continue to keep this as a priority and will continue to provide all required financial reports on or before the date due.

In 2008, SERC established a separate cash investment account for the segregation of any fines and penalties, to ensure such monies are not commingled with operating funds. In coordination with NERC and the other regional entities, SERC established a process for the accounting of fines and penalties.

##### **2. State Regional Entity's assessment of its own effectiveness in developing its business plans and budgets and in the submission its business plans and budgets in a consistent manner with NERC and the other Regional Entities.**

SERC is fully capable of developing quality business plans and budgets that are consistent with NERC and other regional entities. SERC, along with NERC and the other regions, made



significant strides during the 2009 business planning cycle with regard to uniformity of account descriptions, allocation of costs, and financial reporting. The Commission recognized these improvements in its October 16, 2008 Order conditionally approving the business plans and budgets.

SERC has been able to improve its budgeting estimates and processes since its submission of its 2007 business plan and budget, primarily because the expectations of regional entities have become clearer over the past two years and SERC has gained experience in performing regional entity duties. SERC was effective in both 2007 and 2008 with regard to business planning and budgeting. In 2007, actual operating costs were \$206,000 under budget in an \$8M budget (within 2.5% of target). SERC achieved similar results in 2008.

SERC followed all NERC guidance and templates in preparing its 2009 business plan and budget and was required to obtain SERC Board approval before the final submission to NERC. In addition to process improvements made by NERC for the 2009 business plan and budget process, SERC leveraged improvements made to its time-tracking and financial operations implemented in 2008 to further improve the process for 2009. SERC has and will continue to make improvements to its financial function and it is confident that these changes will enhance future period budget requests.

SERC will continue to work with the other regional entities to strive for even greater consistency in budgeting and in the creation of uniform metrics. The improvement in the consistency of the nine start-up entity business plans and budgets, as expectations and duties for these entities have continued to evolve over the past two years, seems quite good. Due to the varying structures of the regional entities, there could still be differences in how each organization prepares its respective operating budgets, but, particularly in light of the October 16, 2008 FERC Order on the 2009 business plans and budgets, the regional entities will continue to discuss and harmonize any remaining differences with NERC and each other.

Stakeholder feedback to SERC in this area appear to support a conclusion that performance has been satisfactory in this area, with ratings of 1.80, 1.67, 1.78 on Questions 54-56 respectively, on topics of stakeholder inputs to budgets, fair allocation of costs, and adequate financial controls and reporting.

### **3. State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.**

SERC believes that NERC has set a good example by developing a three-year plan leading into its 2009 business planning cycle. SERC developed three-year goals in the first quarter of 2009 as a precursor to the 2010 business planning cycle. SERC encourages NERC and other regions to continue taking this same approach, updating the rolling three-year goals each year. It is important that the goals not be at too high a level and vague – goals should be sufficiently detailed and measurable as to provide a basis for effective decision-making in the annual budget cycle and for performance measurement after-the-fact. A rolling three-year planning horizon will enable the ERO and regional entities to more effectively manage organizational change and control costs.

A second improvement, also to be implemented in the startup phase of the business planning cycle would be for the regional entities and NERC to collaborate on a review of the NERC and





regional processes across various functions, including the interfaces between NERC and the regions. This process review would allow identification of any areas of duplication or inefficiencies and provide an opportunity for incremental improvements to be made each year.

SERC will continue to enhance its ability to track costs for its various activities. Greater detail in allocating costs across various functions and activities will lead to greater certainty in forecasting and controlling these costs in the future. SERC believes there is an opportunity for the regions and NERC to share best practices, and perhaps to share tools, to achieve a high level of consistency and quality in the tracking and reporting of costs. There may in fact be an opportunity to reduce the cost by using common budgeting and cost accounting tools.

One of the major uncertainties in business planning is the amount of resources needed for certain activities that can be more 'lumpy' in the assignment of personnel resources and budget. The two clearest examples are the number and cost of hearings and large event analysis. On one end of the spectrum there could be no hearings and no large event to address in a year. However, each region must plan some reserve for such occasions. SERC's approach, like other regions, has been to assume a very small number of hearings and large event analyses and a modest cost for each. There is some risk that these assumptions could be exceeded and the region would be at risk of quickly burning through its reserve required for operations.

SERC would propose consideration of a shared reserve among the regional entities, and perhaps NERC. Each entity would contribute a requisite amount to the common reserve and be entitled to use the reserve under certain conditions. Anyone using the reserve would be required to repay the reserve in the next business cycle. Such an approach would provide greater financial strength to all of the participants and provide a tool for managing risk and uncertainty regarding unexpected peaks in workload or legal expenses. As envisioned, each entity would retain operating reserves for normal business but participate in the reserve sharing for certain high risk and high cost activities. This approach would allow an appropriate coverage for budget uncertainties but at a much lower total cost through sharing of the risk.

SERC believes that NERC and the regional entities need to standardize language and expectations regarding the acceptable components of indirect costs so that the regions can consistently budget certain expenses as either indirect (overhead) or direct (functional). With two full years of experience, and in accordance with FERC guidance, NERC and the regional entities should be able to implement a uniform expense allocation that will enhance consistency among the regional entities and NERC.

One area of particular concern in SERC is the labeling of committee/forum activities as indirect. In SERC, stakeholder experts participating in committee activities are direct contributors to reliability improvements in the region, yet allocating that expense to half a dozen functional areas defined in the budget template is not practical or efficient.

SERC suggests NERC consider implementing a uniform budgeting tool, in place of the NERC-supplied Excel spreadsheet templates, to capture and project expected budgetary needs for each region. Due to the complexity of budgeting to the function level for so many entities, it would be useful if a common tool could be used by NERC and all regional entities. This could help improve efficiency and consistency by allowing each organization to prepare its budgets in a more automated fashion.



SERC believes that the adoption of uniform metrics would enable the identification of trends that would be useful for projecting future resource needs. NERC and the regional entities have already started making efforts toward this goal.

Additionally, given the experience of all the regional entities, and with the hope that its processes and templates will need fewer changes during 2009, SERC hopes to have time to work with other regional entities to identify and determine trended and comparative financial results for the 2009 operating year which will enhance the consistency of the regional entities' future business plans & budgets.

**ATTACHMENT 4F**

**SOUTHWEST POWER POOL REGIONAL ENTITY**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**

**Southwest Power Pool (SPP RE) Statement of its Activities, Achievements and Effectiveness  
in Carrying Out its Delegated Responsibilities**

*The Commission's regulations at 18 C.F.R. §39.3(c) require NERC to "submit an assessment of its performance three years from the date of certification by the Commission, and every five years thereafter." The initial performance assessment report is due to be filed with the Commission by July 20, 2009.*

*Consistent with the FERC regulations and the guidance in FERC's order as quoted above, the principal focus of the Regional Entity's document should be the Reliability Standards Development and Organization Registration and Compliance Monitoring and Enforcement (OC/CMEP) programs. (The Regional Entity should also include a discussion of its activities in the other four statutory program areas, but a less extensive discussion is needed.)*

**INTRODUCTION**

Southwest Power Pool, Inc. (SPP) is a Regional Transmission Organization, approved by the Federal Energy Regulatory Commission (FERC) to ensure reliable supplies of power, adequate transmission infrastructure, and competitive wholesale prices of electricity. In April, 2007, FERC approved the Delegation Agreement between NERC and SPP for the purpose of delegating to SPP certain responsibilities and authorities as a Regional Entity (RE) as defined by Section 215 of the Federal Power Act for the SPP region. These responsibilities and authorities include: i)Reliability standard development; ii)compliance enforcement; iii)Organization registration and certification; iv)Reliability readiness audit and improvement; v)Training and education and vi)Situational awareness and infrastructure security. SPP RE has registered entities in eight states across the central southwest United States.

The SPP RE is governed by three independent Regional Entity (RE) Trustees. The RE Trustees have autonomy over decisions in fund allocation and approval of the SPP RE Budget, as well as oversight of RE decisions on regional standards, compliance enforcement actions, and penalties.

The SPP RE is funded separately from other SPP, Inc. non-statutory activities by Load Serving Entities (LSEs), who are billed quarterly by NERC for their share of the RE and NERC budgets. Invoices are based on the LSE's annual Net Energy for Load calculations.

The SPP RE Budget provides funding for all programs included in the SPP RE Delegation Agreement. SPP RE Trustees have authority over the RE Budget and are responsible for completing an annual Business Plan and Budget, which is submitted by NERC (on SPP RE's behalf) to FERC for final approval every August. SPP RE employs dedicated RE staff to perform the Compliance and Enforcement program and Organization Registration and Certification. Other SPP RE programs are performed by shared SPP staff. Appropriate separation of staff functions and SPP Bylaws ensure that the SPP RE meets independence requirements as set forth in the April 2007 FERC Order.

## Review of Stakeholder Inputs

Stakeholder ratings and comments from the ERO three-year assessment survey support the notion that SPP has developed a fundamentally sound regional entity governance and staff. On the subject of governance and independence, the following inputs were received<sup>1</sup>:

- SPP RE scored 1.67 (27 respondents) indicating strong agreement that SPP RE is sufficiently independent of owners, operators, and users to effectively perform statutory duties with objectivity and integrity (Survey Question 63).
- SPP RE scored 1.63 (24 respondents) supporting the notion that SPP RE has sufficient rules to ensure its independence from bulk power system owners, operators, and users (Survey Question 65).
- Stakeholders also agree SPP RE is qualified, competent, well-prepared, and organized in the conduct of its statutory functions (score 1.47 on Question 59) and is timely and responsive to stakeholders on reliability matters (score 1.65 on Question 60).

### I. Reliability Standards Development

#### A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.

SPP RE facilitates the activities of the SPP Regional Standards Development Process, which was adopted as part of the SPP Regional Entity Delegation Agreement approved by FERC in 2007.

SPP RE is currently facilitating the development of one draft standard.

- PRC-006-SPP-01 – Regional Underfrequency Load Shedding

SPP RE and the SPP Markets and Operations Policy Committee (MOPC) have assigned the System Protection and Control Working Group (SPCWG) as the Standard Drafting Team (SDT) for the drafting of this standard. The SPCWG meets every two months, more often if necessary. The SDT meetings offer internet conferencing for those team members who are unable to attend in person. SPP RE shared employees facilitate all meetings and provide assistance in the standards development process. To promote wider awareness of and participation in the reliability standards process throughout the SPP region, SPP RE has updated the SPP RE website to provide information on standards being developed and the SPP Regional Entity Standards email exploder list. The site allows access to meeting notices of the SDT, drafts of proposed standards, and links to minutes of meetings.

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<sup>1</sup> Scores are based on a scale of 1 to 5, with 1 being fully agree, 3 being neutral, and 5 being fully disagree.

SPP RE staff also provide updates to the SPP RE Trustees at their regularly scheduled quarterly meetings. Since SPP RE utilizes existing working groups and subcommittees for SDTs, the current active standard being drafted by the SPCWG has been the subject of regular updates to its parent Committee, the MOPC at its regular quarterly meetings. SPP RE shared staff participates in the NERC Regional Reliability Standards Working Group and has contributed to the 2009-2011 NERC Work Plan and the proposed NERC Underfrequency Load Shedding standard.

Since January 2009, SPP RE SDT has developed a first draft for the UFLS standard. This draft is based on the key requirements as listed in NERC's Continent Wide Standard and SPP Criteria 7.3. SPP RE SDT released this draft standard for industry comments for 30 days in the first week of April. This group will continue to monitor the NERC SDT's progress on developing a continent-wide standard and will make necessary adjustments to the SPP RE standard accordingly. The SDT met in the last week of May to review comments received by SPP RE stakeholders on the first draft of UFLS standard. The group is in the process of responding to the comments and preparing second standard draft for comments. The actual date for posting for the second draft posting is yet to be determined at this time.

**B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.**

The SPP RE Standards Development Process, as approved by NERC and FERC as Exhibit C to SPP's Delegation Agreement with NERC, provides for openness, due process, and balancing of interests. Participation in SPP RE's Standards Development Process is open to all parties with a direct and material interest in the SPP region bulk power system (BPS) with no undue financial barriers, and any such entity has the right to participate by expressing an opinion, having its opinion considered, voting on standards and having the right to appeal. Notices of all meetings of the SPP RE and all drafting teams are provided on the SPP RE website, at least seven days in advance; all meetings are open to the public.

The SPP RE Standards Development Process provides for a balance of interests as evidenced by the five market segments and a requirement of a vote of at least two-thirds of the segments for approval of any regional standard. No two segments can dominate, and no single segment can defeat any matter.

SPP RE's Standards Development Process provides fair due process by providing sufficient public notice of the intent to develop a standard and all proposed standards via posting such on the SPP RE Standards Tracking Site for public comments. The site allows all interested parties to submit comments during the commenting period. The Process also provides an appeals process.

During 2008, a revision to the Standards Development Process was made to incorporate a FERC directive in the Order for the SPP RE Delegation Agreement. In that Order, FERC requested SPP RE to clarify that each entity is allowed only one vote in the Registered Ballot Body (“RBB”), and that if an entity held business interests in more than one industry segment, it would be required to choose only one for purposes of voting on a proposed regional standard.

**C. State Regional Entity’s assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SPP RE has implemented changes to its infrastructure to facilitate the SPP RE Standards Development Process. Since the Delegation Agreement was approved in April 2007, SPP RE has trained appropriate staff on the standards development process and has reviewed the process with members of the currently functioning SDT (the SPCWG). A Q&A sheet for the process, including eligibility requirements for voting and participation on the SDT, is posted on the SPP RE website. In October 2007, SPP RE hired full-time Counsel. This position oversees adherence to the requirements of the SPP RE Standards Development Process and has authority to direct SPP RE staff to meet those requirements. In addition, the SPP RE Trustees have been trained on the process and receive updates on the progress of the current proposed standard. SPP RE staff also updates RE Trustees on upcoming regional standards activities for resource planning purposes.

**D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development**

SPP RE has a representative on the NERC Regional Reliability Standards Working Group. This group is a resource for regional entities to share their experiences with regional standards development. It also provides the regional entities with coordination with NERC to ensure consistency between regional and continent-wide standards. Communications from the SPP RE representative on the NERC working group with the SPP regional standards drafting team will aid in expediting the processing of regional standards through NERC after SPP RE approves a regional standard.

**II. Organization Registration and Compliance Monitoring and Enforcement Program**

**A. Describe Regional Entity’s activities and accomplishments in OC/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.**

Staffing

**SPP RE Organizational Chart**

The organizational chart for the SPP RE as of June 18, 2009 is provided in Attachment 1:

On January 1, 2007, there were two full-time employees serving as the regional compliance monitoring and enforcement office, as well as the internal compliance monitor for the SPP RTO registered entity. Upon approval of the SPP Regional Delegation Agreement in April 2007, these two employees formed the nucleus of the independent SPP RE staff. The SPP RTO formed its own internal compliance group as a registered entity. During 2007, the SPP RE added one more staff member to the technical staff and Counsel, ending 2007 with a total staff of four.

In 2008, the SPP RE staff continued to expand by adding three technical staff each assigned areas of concentration such as compliance monitoring, mitigation and enforcement, and event analysis and investigations. In addition, an administrative assistant was added to the SPP RE staff. At the end of 2008, the SPP RE staff totaled eight full-time personnel consisting of six technical staff, one legal counsel and one administrative assistant. Among the credentials held by this staff includes three licensed attorneys, two registered professional engineers and three NERC certified operators.

The 2009 staffing plan called for the addition of three more positions to be filled in the first half of 2009. On March 16, 2009 an RE General Manager was hired. In May, 2009 one position was filled in the enforcement area by a licensed attorney and in June, 2009 the remaining position was filled to support entity registration and RE policy and procedure development. At each scheduled SPP RE Trustees meeting, a workload/staffing assessment is discussed consisting of historical activities, current workload and future initiatives.

The SPP RE Trustees have approved a 2010 Business Plan and Budget with 8 addition positions compared to the 2009 Business Plan and Budget to the RE direct staff to support compliance and enforcement activities. Two of these positions have been approved to be filled in the second half of 2009.

The SPP RE also utilizes independent contractors to augment the full-time staff during the performance of compliance audits, spot checks, event analysis, and investigations.

### Organization Registration

The SPP RE follows the NERC Statement of Compliance Registry Criteria and has adopted the NERC definition of the Bulk Electric System in assessing potential candidates for functional registration. Registration of entities began in 2006 with a general request to all members of SPP to begin registration activities and to assist in identifying other users, owners and operators of the Bulk Electric System in the SPP RE footprint that might be candidates for the compliance registry. The SPP RE staff made numerous presentations concerning registration at SPP meetings, membership meetings of cooperatives and municipalities, and at individual company events in order to expand the knowledge of the registration criteria.



In 2008, the SPP RE added the Interchange Authority to the list of registered functions contained in the Compliance Registry.

As of May 31, 2009 there were 115 registered entities performing 376 functions registered in the SPP RE footprint. The SPP RE has had one registration appeal filed by a registered entity. On June 15, 2009 the NERC Board of Trustees Compliance Committee affirmed the decision of SPP RE regarding the registration. The SPP RE monitors the registration appeals of entities in other regions to stay apprised of changes in registration policies. The SPP RE also works with individual entities concerning registration issues such as new interconnections, changes in ownership, and changing business relationships.

### Compliance Workshops

The SPP RE has held public compliance workshops to educate the membership and other interested parties to comply with SPP criteria since 2000 and after 2007 to comply with NERC reliability standards. In recent years, the SPP RE has expanded the number of workshops to two per year, open to the public but targeted to registered entities, usually one in the spring and one in the fall.

Each workshop lasts approximately two days. Attendance ranged from 115 to 140 participants per workshop in 2007-2009. Each workshop agenda includes a variety of speakers, panel discussions, and interactive Q & A sessions. Participants are encouraged to provide feedback to the workshop coordinator concerning the current workshop and ideas for future workshops.

All of the workshops include some standard items such as a NERC speaker, recent results from the compliance program, registration issues, compliance data management system updates and compliance program schedules. Other topics presented during the 2007 - 2009 workshops included:

- Vegetation Management Standard Activities
- Relay Maintenance Programs
- CIP Standards Implementation
- Audit Preparation Panels
- Internal Compliance Program Attributes
- Annual Compliance Program Rollout

The SPP RE and the SPP Critical Infrastructure Protection Working Group have sponsored three workshops dedicated to CIP reliability standards. The attendance at each workshop has been approximately 85+ participants and featured speakers from the NERC staff, SPP RTO staff, SPP RE staff, industry experts, and other stakeholders.

### Compliance Audits

All registered entities in the SPP RE footprint are subject to compliance audits. Reliability Coordinators, Balancing Authorities, and Transmission Operators are scheduled for audits on a 3-year rotation while all other registered entities are scheduled on a 6-year rotation. The audits for entities on the 3-year rotation program are all conducted as on-site audits. The audits for entities on the 6-year rotation program are conducted either as on-site audits at the registered entity's offices or as off-site audits conducted at the SPP RE's office in Little Rock, Arkansas. The SPP RE also participates with other regional entity staffs on certain audits of multi-regional registered entities.

### Compliance Audit Statistics

	<u>2007</u>	<u>2008</u>	<u>2009</u> <u>(scheduled)</u>
<u>On Site Audits</u>	<u>6</u>	<u>7</u>	<u>15</u>
<u>Off Site Audits</u>	<u>0</u>	<u>11</u>	<u>23</u>

The SPP RE publishes an audit schedule in November of each year with specific dates for the subsequent year, including a proposed list of the entities scheduled for the full 6-year audit rotation. This list is published on the public SPP RE website.

### Self Certification

The SPP RE Self Certification program is performed on an annual basis for each program year with an open certification period beginning in the fourth quarter of each year and closing in mid-January of the following year. All of the self-certification activities are conducted through the SPP RE Compliance Data Management System (CDMS). Each registered entity must complete the annual self-certification forms, provide an executed corporate signature page, and submit a completed internal compliance program questionnaire. The CDMS program alerts the SPP RE staff when submittals are made by the registered entities including notices on non-compliance certifications.

The self-certification activity for the 2007 program year yielded 42 notices of non-compliance from four entities. These entities were relatively new registrants in the compliance registry, with three of the four having registration dates after June 18, 2007.

Self-certification for the 2008 program year closed on January 18, 2009. No new compliance violations have been reported by the entities that have completed the certification.

In addition to the annual self certification, the SPP RE conducted a CIP-002 through CIP-009 self certification for the periods ending in June 2007, June 2008 and December 2008. The SPP RE currently has scheduled additional CIP standards self-certifications for the periods ending June 2009 and December 2009.

Compliance Program Statistics

As of May 31, 2009

<b>Violations Processed</b>			Comments
	Pre-June 18, 2007	157	153 Self-reported; 4 from pre-June 18 <sup>th</sup> audits
	Post-June 18, 2007	78	26 Self-reported
			9 Compliance Audit
			42 Self-certification
			1 Periodic Data Submittal
<b>Mitigation Plans Processed</b>			
	Pre-June 18, 2007	157	157 Reported complete
	Post-June 18, 2007	67	67 Accepted by SPP RE
			36 Reported complete; 36 have been verified as completed by SPP RE
			31 In progress

The SPP RE received and processed one complaint from June 2007 to May 31, 2009.

*B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its Region.*

The SPP RE has the authority to monitor and enforce compliance with the NERC Reliability Standards through a FERC approved Delegation Agreement with NERC. The SPP RE has adopted the NERC Compliance Monitoring and Enforcement Program (CMEP) without exceptions. In addition, the SPP RE follows the NERC Rules of Procedure.

The SPP RE General Manager, compliance monitoring and enforcement staff and the RE Counsel are independent of all other departments of SPP, Inc. The SPP RE Trustees have delegated certain levels of enforcement actions to the full-time staff but have retained approval authority over major enforcement actions and proposed settlements of compliance violations.

The SPP RE also utilizes FERC Orders, FERC staff guidance, NERC Process Bulletins and NERC staff guidance to form its authority and ability to monitor and enforce the NERC Reliability Standards.

Since joining SPP RE in March 2009, the RE General Manager has conducted a resource assessment resulting in a proposal for 8 additional direct positions in the 2010 SPP RE Business Plan and Budget compared to the 2009 Business Plan and Budget.

*C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards.*

All SPP RE employees are required to have a current SPP Code of Conduct on file with the SPP Human Resources department. In addition, all of the SPP RE employees must be current on all SPP Policies and Procedures relating to SPP employees. All SPP RE employees are expected to be free of conflicts of interest that could impede their ability to make decisions that are fair and independent of any other user, owner or operator of the BES.

In 2007, the SPP RE staff moved into a separate area of the SPP offices with access controlled by an electronic key lock system. In May, 2009 SPP RE direct staff moved out of the SPP, Inc general office space to a different office building where SPP RE direct staff are the sole SPP employees on one floor. The office building houses SPP engineering staff on a different floor. Access to the RE offices has been restricted to the SPP RE direct staff and the Security Department at SPP. Other SPP staff and stakeholders must request access to the SPP RE offices and are escorted at all times while in the RE office area. This separation has allowed for more open discussion among the compliance staff and improved decision making by the compliance staff.

The SPP RE allows all audited registered entities an opportunity to accept or object to any member of a proposed audit team. A short biography of each audit team member is attached to the original audit notice to the registered entity to aid the registered entity in identifying conflicts from prior employment or other activities.

In addition to avoiding conflicts of interest, all violation assessments and enforcement actions are performed as a team or collaborative effort. Findings from compliance audits,

spot checks, complaints and investigations are identified by the compliance team assigned to the activity (generally 3 or more members) before being presented to the SPP RE management staff for approval. Findings from self-certification, self-reports, periodic monitoring, and exception reporting are reviewed by the SPP RE staff assigned to the activity, other SPP RE staff members, and the registered entity that submitted the violation notice before being presented to the SPP RE management staff for approval. Enforcement actions are also processed using a team approach generally involving the Lead Engineer assigned to the enforcement group, the compliance monitoring staff that discovered the violation, the Executive Director and the RE Counsel. The use of this type of team approach helps educate all of the SPP RE staff involved in compliance monitoring and enforcement, draws on each staff member's experience and expertise, and reduces the number of violations that are later dismissed.

The SPP RE staff also participates in numerous working groups with other regional entities and NERC personnel. The goal is to compare and contrast compliance, enforcement and event analysis activities in order to provide a consistent product from the regional entity standpoint. These groups are particularly helpful during events or violations of "first impression" in the SPP RE, allowing the SPP RE staff to draw on the experiences of other regional and NERC personnel.

As discussed earlier, the SPP RE is affiliated with the SPP RTO, which is a registered entity in the SPP RE and SERC regions. In order to avoid the appearance of any conflicts in performing compliance audits for the SPP RTO, NERC is planning to take the lead in performing the compliance and enforcement activities for all of the functions for which the SPP RTO is registered.

*D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.*

The effectiveness of the SPP RE in administering the Organization Registration/Certification and annual CMEP programs is steadily increasing. The primary contributors to this improvement include: additional dedicated SPP RE staff, allowing SPP RE to process the number of violations occurring at any time; the experience level of the staff resulting in increased productivity and the ability to quickly respond to changes in the CMEP program and its requirements; and the growing experience of the registered entities in performing internal compliance activities and processing the data flow required by the SPP RE.

On January 1, 2007, there were approximately 35 entities participating in the pre-enforceable compliance program. Most of these entities had been participating in the pre-enforceable program since 1999 and were familiar with the SPP staff, NERC, the existing reliability standards and the tools used by the SPP staff for reporting compliance activities. By June 2007 when the standards became mandatory, approximately 120

entities had registered in the SPP RE footprint, a 250% increase in registered entities. Accompanying this large increase in participating entities was a wave of pre-June 18<sup>th</sup> self-reports that primarily came from these new entities (over 90% of the pre-June 18<sup>th</sup> self-reports came from new registrants). This wave of self-reports overloaded the initial SPP RE staff and every aspect of the compliance process. In addition to the sheer number of violations, some of the reports were incomplete and inaccurate requiring extra processing time. However, with the collaboration with the other regional entities' staff and guidance from the NERC staff, these violations were moved through the system and for the most part, were reported complete and verified by the summer of 2008. While the number of reported violations diminished, it became quite evident that additional dedicated staff was required to perform the delegated compliance monitoring, enforcement activities, and comprehensive mitigation plan monitoring activities.

The second major challenge occurred at the end of 2007 when the registered entities were required to perform their first annual self-certification utilizing the SPP RE CDMS program tool. Portions of both 2007 compliance workshops were dedicated to the CDMS program tool and the interfaces with the registered entities. First time users still struggled with the CDMS program tool as well as the concept of producing a complete self-certification for all of the requirements assigned to each functional registration. In addition, the SPP RE utilized a new release of the CDMS program tool that proved to be inadequate under the stress of so many new users. The CDMS problems required many man hours of the SPP RE staff time to respond to user's calls for assistance and led the SPP RE to extend the final due date for the self-certifications by approximately 40 days. The SPP RE staff and Midwest Reliability Organization (MRO) staff worked with the developers to make improvements to the CDMS program tool and launched a vastly improved version in April 2008. This new version has corrected the problems and even received accolades from many of the users. Importantly, it provides the SPP RE staff with improved reporting and monitoring capabilities.

*E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.*

The SPP RE staff has an average of approximately 18 years experience in the electric utility industry. However, with the exception of the Executive Director and the Lead Engineer, the average tenure in any compliance monitoring and enforcement program is less than 1½ years (the Executive Director and Lead Engineer have an average of 8 years of tenure in the voluntary and mandatory NERC Compliance Program). The SPP RE staff continues its professional development through training courses offered by NERC, private training companies, and FERC sponsored conferences. The SPP RE staff also participates on numerous regional entity working groups that are designed to improve consistency and effectiveness of the regional work product. As discussed earlier the RE General Manager has conducted a resource assessment which resulting in a proposal for 8 additional direct positions in the 2010 SPP RE Business Plan and Budget compared to the 2009 Business Plan and Budget.

During the 3<sup>rd</sup> quarter of 2008, the SPP RE conducted a survey of registered entities to gather feedback concerning issues including regional reliability standards, readiness evaluations, compliance program issues, training, and suggestions for improvements. Approximately 75 responses were received. The SPP RE staff is reviewing the responses and suggestions and will implement the suggestions for improvement, as appropriate.

In addition to the public workshops discussed earlier, the SPP RE has assisted the SPP RTO in launching the Compliance Users Forum at which registered entities of the same functions can meet to discuss issues and share ideas for best practices. After two preliminary sessions held following the SPP RE compliance workshops, the first stand alone meeting was held in February 2009 in Little Rock, Arkansas.

Before year-end 2009, the SPP RE also plans to expand its outreach efforts by launching a quarterly newsletter to provide another source of information to the registered entities in the SPP RE footprint.

### **III. Other Program Areas**

#### **A. Reliability Readiness Evaluation and Improvement Program**

##### **1. Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.**

The SPP RE staff managed all aspects of the NERC Readiness Evaluation and Improvement Program in the SPP RE footprint. These activities included the scheduling of reviews, soliciting regional volunteers, acting as regional co-lead during the evaluation and finally monitoring the recommendations from each evaluation. In addition, some members of the SPP RE staff participated as out-of-region volunteers for evaluations of Reliability Coordinators in other regions.

From 2004 through 2008, all Reliability Coordinators, Balancing Authorities, and Transmission Operators registered in the SPP RE footprint participated in at least one, and for approximately half of the entities a second, Readiness Evaluation before the program began phasing out near the end of 2008. The SPP RE hosted five Readiness Evaluations in 2007 and three Readiness Evaluations in 2008.

The SPP RE benefits from an experienced pool of volunteers who not only served the Readiness Evaluation Program in the SPP RE footprint, but also provided a pool of volunteers for the out-of-region slots. This pool of volunteers also provided valuable insight to their own companies that were scheduled for upcoming evaluations as well as the opportunity to share knowledge and experiences with other industry participants.

- 2. State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

As discussed above, the SPP RE staff performed the role of the regional co-lead for almost every Readiness Evaluation from 2004 until early 2008. This role brought consistency and experience to each evaluation in the SPP RE footprint. However, in late 2007 and early 2008, the NERC Compliance and Certification Committee of stakeholders made a recommendation to NERC that compliance personnel from the regional staffs not participate as team members on future Readiness Evaluations. The entire dedicated SPP RE staff is involved in the Compliance Monitoring and Enforcement Program, effectively eliminating the existing RE staff from participating in future Readiness Evaluations. The robust pool of volunteers developed over the previous four years allowed a smooth transition to an all volunteer SPP contingent for the scheduled evaluations in late 2008. However, only three evaluations were performed of the original six scheduled due to NERC's proposed phase out of the program.

The SPP RE continues to monitor the progress of the recommendations from each evaluation report and provides quarterly updates to NERC to support its continuing efforts at the national level. The Readiness Program was phased out in the first quarter of 2009, but the SPP RE has allocated manpower to track all open recommendations to conclusion and continue to update the NERC staff as appropriate.

- 3. [Discussion of proposed improvements not needed, since this program is being phased on in the first quarter of 2009.]**

NO RESPONSE REQUIRED

## **B. Training, Education and Operator Certification**

- 1. *Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.***

NERC requires personnel responsible for the operation of the electrical grid to obtain 32 hours of emergency operations training annually. In addition, to maintain Operator certification required by NERC, Operators must obtain up to 200 hours of training over three years which includes simulation training. It was critical that SPP training staff develop training elements to provide knowledge and operating practice in support of the emergency operating plans for the SPP region, with SPP registered entities, and between regions.



To accomplish this, SPP training staff developed a Regional Emergency Operations curriculum in early 2007. This curriculum included a variety of training topics, delivery styles, and environments all designed to address different training needs throughout the SPP region.

SPP training staff created a catalog of remotely delivered internet conferences on Transmission Loading Relief, Congestion Management, Voltage Control, System Stability, IROL, SPP Reserve Sharing System, and SPP Procedures. SPP training staff developed a total of seven internet conference topics delivered in 2007 and 2008, with multiple deliveries of each.

In addition to the internet conferences, SPP training staff developed an in-person emergency operations class. This class is designed to utilize simulated scenarios facilitated through a critical decision making process. Through the use of this process, small groups in this class work together to resolve operational issues such as flow limit violation and voltage control. The use of tools such as the SPP Dispatcher Training Simulator (DTS) allows the participants to practice problem solving in an operational environment.

SPP training staff also enhanced the restoration drills to allow registered entity operators to practice simulated restoration exercises and implement their own restoration plans in conjunction with other registered entities throughout their sub-region and the SPP region as a whole. The restoration drills provide an excellent opportunity for registered entity operators to work with each other and SPP operations personnel to simulate the restoration of the transmission systems utilizing their respective restoration plans. There are eight sub-regional and two regional drills annually, allowing ample opportunity for operators to hone their skills in restoration principles. These drills are offered remotely, via Virtual Private Network connections, allowing a wider mix of operations personnel, without the burden of travel. Registered entity operators are remotely connected to the SPP DTS and participate in a group comprised of other registered entity companies, along with SPP operations personnel. Together they restore the registered entity company systems as well as a significant portion of the SPP region during each drill.

SPP training staff hosts System Operations Conferences. These conferences were offered twice in 2007 and 2008. With a wide variety of operations-related topics, the participants interact with their peers throughout the 3-day conference. In 2007 SPP training staff added critical decision making exercises to the existing knowledge-based offerings typical of a conference setting. These exercises offer an excellent opportunity for operators to share ideas and experience, compare different operations perspectives, and add to their knowledge base with specific regard to a large array of operational topics.

In each of these delivery settings, SPP training staff has continued to make use of different types of training. These offerings utilize knowledge-based lectures to broaden the platform of general knowledge for registered entity operations personnel. SPP training staff uses critical decision making exercises and problem-centered learning exercises to allow operators to interact and work together in resolving operational issues. Performance-based assessments, along with traditional quizzes and exams allow a more thorough evaluation of

the learning process throughout the training catalog and a deeper look at the competency level of SPP registered entity operations personnel.

Finally, in 2008 SPP training staff provided a three-part Train-the-Trainer series designed to promote a wide range of training deliverables along with the necessary components required of quality training programs. The series is designed to promote the 360-degree (knowledge, skills and attitudes) training perspective that SPP is utilizing within its own training department. The Train-the-Trainer sessions provide trainers within the SPP region the opportunity to explore different training methods and delivery styles, from performance-based assessments to critical decision making and problem-centered learning exercises.

***2. State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

During 2007, SPP training staff delivered 24 internet conferences, with an average of nearly ten participants per conference. A total of 392 Continuing Education Hours (CEH) were awarded from these sessions. In 2008, the participation improved to an average of 22 participants providing a total of 726 CEH.

The Regional Emergency Operations Class was delivered five times in 2007 with 780 CEH awarded, averaging eight participants per session. In 2008, there were six sessions, averaging more than 11 participants per session and awarding more than 1,400 CEH.

Nearly 5,000 CEH were awarded during the ten restoration drills delivered in 2007. Average attendance in the sub-regional drills and regional drills was 28 and 69, respectively. During 2008, by comparison, approximately 7,550 CEH were awarded. Average participation rose to 30 for the sub-regional drills and 98 for the regional drills during 2008.

The two 2007 System Operations Conferences (SOC) included 110 participants and nearly 2,600 CEH awarded. In 2008, 103 participants received a total of 2,440 CEH. The number of participants dropped in 2008 conferences due to a participant limit enforced primarily due to facility constraints and the move to the more interactive, facilitation-driven exercise format.

From 2007 to 2008, SPP training staff increased the number of CEH awarded to operators at registered entity companies by approximately 35%.

From January 1, 2009 to May 31, 2009 the SPP training staff delivered four Regional Emergency Operations classroom training sessions, seven internet conferences, four sub-regional restoration drills, one regional restoration drill, and one Train-the-Trainer session. The REOPs classroom enrollment is up from an average of 11 in 2008 to 19 for the deliveries from January 1, 2009 to May 31, 2009. The internet conferences enrollment is up from an average of 22 in 2008 to 33 from January 1, 2009 to May 31, 2009. The sub-regional restoration drill enrollment is up from an average of 30 in 2008 to 42 from January 1, 2009 to May 31, 2009. The average regional restoration drill enrollment was 98 in 2008 compared to

86 in Spring 2009. There was no significant difference in enrollment between the 2008 Train-the-Trainer compared to the delivery in February 2009. A total of 7,528 CEH were awarded from January 1, 2009 to May 31, 2009.

The information above reflects SPP's commitment to improve training and increase the number of operators participating in training. Below are selected relevant comments from the semi-annual regional training survey that SPP training staff has worked to respond to:

*More System Operator Conferences. We can't get enough people free to attend them at only two per year. How about every quarter?*

***SPP training staff increased the number of conferences from two to three.***

*More venues for the regional training sessions.....bring the training to the customers rather than them come to you.*

***Each conference is held in a different geographic location including (for 2009) Missouri, Arkansas and Louisiana.***

*I attended the Regional "Black Start" drill (3 days) in Dec and have taken various "Net Conference" classes. Each time we go through the drills and classes, it goes a little better. I think you're on the right track. This is an evolving process for us all. We learn from our mistakes as well as the things we do right.*

***SPP training staff continues to be an industry leader in the design and facilitation of our restoration drills.***

*Please try to keep the SOC from being a NERC type training class only. The table top exercises are good as they promote group input and creative thinking.*

***SPP training staff designed its System Operations Conference ("SOC") to address real world scenarios and support critical decision making and situational awareness through problem-based scenarios.***

**3. State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification.**

Prior to the hiring of the SPP RE General Manager in March 2009, the SPP Training Department reported to an SPP executive who also acted as the SPP RE executive. Based on a review by the new RE General Manager and in consultation with NERC staff, the 2010 SPP RE Business Plan and Budget will include only training related to statutory functions such as the compliance workshops. This is consistent with the practices in the other Regional Entities. The remaining training which represents essentially the entirety of the Training Department will be budgeted in the SPP, Inc. budget.

During the period since April 2007, SPP has made significant progress in making the training activities much more interactive, utilizing critical decision making as well as a problem-centered learning approach to training. These exercises allow operators an opportunity to train in an intense, interactive environment more closely resembling the environment in which they work. Through the System Operations Conferences, the Regional Emergency Operations classes, and the System Restoration Drills, the operators within the SPP region can share invaluable experience with each other while sharpening their own skills in risk management and critical thinking. SPP training staff intends to migrate the net conferences to a more interactive delivery as well, by using breakout sessions to facilitate more group interaction.

SPP training staff has developed more training activities that can be delivered remotely, including the net conferences and the restoration drills. This allows registered entity operators the opportunity to participate in quality training without the added burden of travel. Through these remote training activities, SPP Training has designed environments which include group activities. These activities help develop idea sharing and the advantage of perspective from different parties, all with the increased ease of scheduling and participation. The Operations Training Working Group (OTWG), which is comprised primarily of training personnel at registered entities within the SPP RE footprint, expressed an interest in SPP trainings staff developing not only remotely delivered training, but training which also included interaction among its operators at registered entities. The training catalog developed by SPP training staff does both.

Based on semi-annual regional training surveys and with feedback from the OTWG, SPP training staff will continue to manage its regional training catalog to meet the varied needs within the region. The SPP Training staff strives to offer multiple deliveries of all training activities to help reach as many registered entity operators as possible.

Looking at 2009 and beyond, SPP training staff will:

- a) offer an additional System Operations Conference to allow more personnel to take advantage of this training opportunity. SPP training staff also plans to conduct these conferences in three different geographic areas within the SPP RE footprint (Little Rock, AR; Springfield, MO; and Lafayette, LA) to better facilitate registered entity participation while lessening the burden of travel.
- b) include training on Human Factors Performance to address continued concerns regarding operations personnel and situational awareness, as well as increase the use of performance-based training, such as critical decision making exercises and problem-centered learning.

- c) update its net conference offerings to include a course on SPP Criteria and NERC Reliability Standards, specifically aimed at those policies and procedures addressing emergency operations concerns. These two new net conference offerings will replace the SPP Procedures and the Interconnection Reliability Operating Limit (IROL) net conference in 2009, based on feedback from operators completing the survey, as well as feedback from the OTWG members.
- d) continue its Train-the-Trainer sessions to help trainers at registered entities develop their own training programs in light of the potential impact of NERC PER-005 (System Personnel Training Standard).
- e) offer training on the NERC PER-005 System Personnel Training Standard to help inform and prepare registered entity training personnel on the potential impacts of this standard.
- f) migrate regional emergency operations net conference training sessions to a self-study format.
- g) continue to explore ways to increase availability of the DTS to registered entities.
- h) continue to provide enhancements to the DTS in order to bring the simulator functionality closer to real world applications.
- i) continue to seek out strategic partnerships that will allow SPP to provide registered entity operations personnel with high quality training and performance support.

### **C. Reliability Assessment and Performance Analysis Program**

#### **1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.**

SPP RE through SPP RTO staff has been performing the Reliability Assessment and Performance analysis function since January 1, 2007. Each calendar year, SPP staff has actively participated in the following assessments that were coordinated through NERC's Reliability Assessment Subcommittee (RAS):

- Summer Assessment (2007, 2008 and 2009)
- Winter Assessment (2007 and 2008)
- Long Term Reliability Assessment (10 year outlook with emerging issues)

SPP staff has also developed power flow models and conducted various reliability assessments to meet NERC Transmission Planning Standard (TPL 001 through 004) requirements

In addition, SPP staff has been working with neighboring regions to conduct an inter-regional assessment to meet the NERC TPL-005 requirement. Since January 1, 2007 SPP staff has conducted summer and winter inter-regional assessments for year 2007 and 2008. For 2009, SPP RE is in a process of conducting 2009 and 2014 summer inter-regional studies. The results of the 2009 summer inter-regional study were available in May 2009.

**2. State Regional Entity's assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

SPP RE staff has been closely monitoring the reliability assessments and performance analysis while providing independent review from time to time. In December 2008 an RE direct staff person was added to participate in the reliability assessment process along with the shared resources and an SPP RE direct staff person has been appointed to NERC's RAS team to actively participate in all reliability assessments going forward.

SPP RE stakeholder comments on the ERO assessment survey lend support to the notion that SPP RE is meeting expectations in this area:

- Rating of 2.29 on Question 32 by 17 respondents indicating SPP RE is effective in performing accurate and independent assessment of future reliability and adequacy.
- Rating of 1.78 on Question 34 by 23 respondents indicating SPP RE effectively communicates reliability assessment results.

**3. State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.**

SPP RE, along with other NERC Regional Entities through the NERC RAS group, has recommended a "Scenario Assessment" be performed in 2009 for NERC's Long Term Reliability Assessment (LTRA). This assessment will allow each region to develop a scenario in addition to their reference cases. SPP RE, along with other regions, including Midwest Reliability Organization, Reliability First Corporation and Northeast Power Coordinating Council, have chosen "Wind Penetration" as a possible scenario. The reliability impact of this scenario will be discussed in NERC's 2009 LTRA report.

**D. Situational Awareness and Infrastructure Security Program**

**1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

The SPP RE provided active participation in the area of critical infrastructure protection by supporting NERC Critical Infrastructure Protection Committee (CIPC)

meetings. Three SPP RE representatives attended CIPC meetings, representing the physical, cyber, and operations expertise areas. These representatives provided insight and support of these critical CIPC functions, and provided an informational conduit between NERC and SPP registered entities.

In addition to CIPC representation, the SPP RE also supported four quarterly Critical Infrastructure Protection Working Group (CIPWG) meetings. These meetings brought together SPP RE staff and registered entity representatives to discuss the NERC CIP Standards (CIP-002 through CIP-009). Specifically, standards revision activities, ongoing implementation recommendations, and updated cyber and physical security threats were discussed at length during these meetings. External agencies, such as the Department of Homeland Security and the Federal Bureau of Investigation, were invited to educate registered entity representatives on the latest emerging threats to critical infrastructure.

SPP RE also conducted CIP Compliance “How To” workshops in 2007 and 2008 as well as included CIP compliance in the periodic Regional Compliance Workshops. Another CIP workshop was held in May 2009.

As the reliability coordinator for the region SPP participates in daily Reliability Coordinator (RC) morning calls with neighboring RCs to review outages, weather, special operating situations and any relevant events that impact the reliability of the bulk power system. SPP also provides NERC and FERC with a Daily Report of the SPP Region. This report includes information about outages, current congestion, and other pertinent system information for the operating day.

**2. State Regional Entity’s assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

In the stakeholder survey, feedback was positive regarding SPP RE’s role in support of CIP:

- Rating of 1.61 by 18 respondents to Question 45 regarding SPP RE’s role as a leader and facilitator in the CIP area.

SPP RE continues to improve its efforts related to Situational Awareness. On April 6, 2009, SPP RE was also able to add a full-time Director of Critical Infrastructure Protection. SPP RE enhanced stakeholder understanding by initiating CIP workshops.

**3. State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.**

Upcoming critical infrastructure protection activities include ongoing support of CIPC and the SPP CIPWG, and a CIP Standards compliance workshop for SPP registered entity companies beginning in May 2009. This workshop provided additional guidance on the evolving CIP Standards, emerging technologies, procedures, and best practices for achieving CIP compliance.

SPP RE is also working with NERC and the other regional entities to determine more ways to provide situational awareness information to NERC and FERC to satisfy the electric reliability legislative requirements.

## **E. Budgeting**

### **1. Describe Regional Entity's activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.**

The SPP RE successfully obtained NERC and FERC approval of both its 2007 and 2008 business plans and budgets and conditional approval of its 2009 business plan and budget. Similarly to the other regional entities and NERC, SPP RE has improved its budgeting estimates and processes since its submission of its 2007 business plan, primarily because the expectations of regional entities have become clearer over the past two years, and SPP RE has gained experience in performing regional entity duties.

Below are a few of the processes and systems that SPP has put in place since the 2007 business plan was completed and the delegation agreement was formally approved by FERC. These processes and systems have significantly improved the ability of SPP RE to budget and forecast:

- SPP established a methodology for charging direct costs and allocating indirect costs to SPP RE. This methodology consists of charging all directly identifiable costs such as salary, benefits and payroll taxes of each SPP RE and SPP shared staff member performing statutory functions to the statutory program, based on the number of hours worked performing those functions. The overhead/indirect cost rate per hour is calculated annually based on total SPP overhead costs. The overhead/indirect costs are allocated to SPP RE by multiplying the hourly overhead/indirect cost rate times the number of paid hours for SPP RE and recorded hours for SPP shared staff members to SPP RE statutory direct programs. Unlike the direct costs, which are specific to the staff member, the hourly overhead/indirect rate used for the indirect cost allocation is the same for all staff. This methodology is further described in SPP's Delegation Agreement and in previous filings with the Commission.



- Beginning in January 2008, SPP initiated a company wide time-tracking system used to record time devoted to performing statutory functions. The system is a third party hosted solution which is accessed through the internet. This system allows SPP management to review and approve timesheets submitted by each SPP user. Coupled with the cost allocation methodology described above, this timetracking system has allowed SPP to “carve out” staffing costs associated with the regional entity statutory functions.
- Beginning in first quarter 2008, SPP initiated a new expense tracking tool. The new tool allows SPP to more easily identify expenditures associated with the regional entity statutory functions.
- In 2009, the new RE General Manager conducted a review of the costs included in the indirect expense rate and identified certain adjustments which will be made to the rate in 2009 and beyond.

**2. State Regional Entity’s assessment of its own effectiveness in developing its business plans and budgets and in the submission its business plans and budgets in a consistent manner with NERC and the other Regional Entities.**

The SPP RE’s effectiveness in developing and submitting business plans and budgets in a consistent manner with NERC and the other regional entities has steadily improved with each filing. For all of its submitted business plans and budgets, SPP RE has followed NERC guidance and templates, attended all scheduled budgeting meetings with NERC and the other regional entities, and had numerous discussions with NERC and the other regional entities regarding the preparation of the business plans and budgets. NERC has improved its processes and templates and hosted more discussions with the regional entities to try to improve the consistency of the business plans and budgets. Overall, SPP RE’s business plan and budget was consistent with NERC guidance. Due to the varying structures of the regional entities, there may be differences in how each organization prepares its respective operating budget but, particularly in light of the October 16, 2008 FERC Order on the 2009 business plans and budgets, the regional entities will continue to discuss and harmonize any remaining differences with NERC and each other.

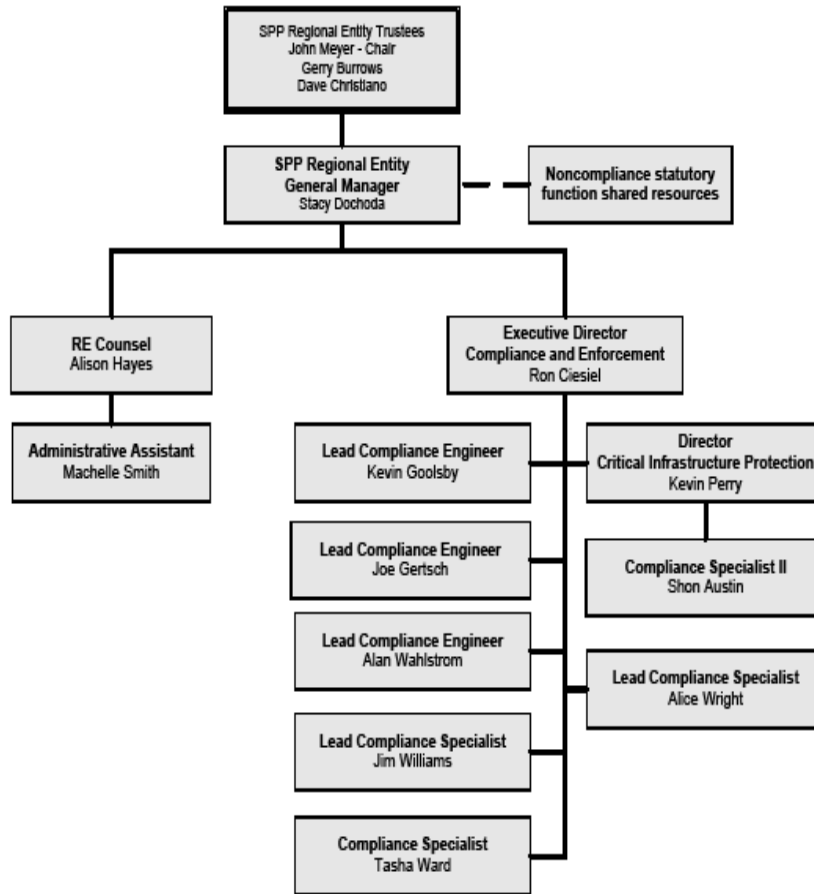
**3. State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.**

- SPP RE suggests that NERC and the regional entities use generally accepted accounting principles to increase the level of consistency in the business plans and budgets. This would require NERC and each regional entity to prepare an operating budget and a separate capital expenditures budget.

SPP RE believes that NERC and the regional entities need to standardize language and expectations regarding the acceptable components of indirect costs so that the regions can consistently budget certain expenses as either indirect (overhead) or direct (functional). With two full years of experience, and in accordance with FERC guidance, NERC and the regional entities should be able to implement a uniform expense allocation that will enhance consistency among the regional entities and NERC.



# 2009 Organizational Chart



Last Updated: 06/18/09

**ATTACHMENT 4G**

**TEXAS REGIONAL ENTITY**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



**Texas Regional Entity Statement of Activities and  
Accomplishments in Carrying Out its  
Delegated Responsibilities for the Period  
January 1, 2007 – May 31, 2009**

**June 1, 2009**

## **Introduction**

Pursuant to the regulations of the Federal Energy Regulatory Commission (FERC), 18 C.F.R. §39.3(c), the North American Electric Reliability Corporation (NERC) is required to submit an assessment of its performance three years from the date of NERC's certification as the Electric Reliability Organization ("ERO") for the United States of America. NERC must include in its self-assessment an assessment of the effectiveness of each Regional Entity. As part of the process of developing the Regional Entities' assessments, NERC has requested that each Regional Entity provide a Statement of Activities and Achievements for distribution and public comment.

Public comment on the first draft of NERC and the Regional Entities' Statement of Activities and Achievements to October 31, 2008 was solicited on January 14, 2009 via a questionnaire posted on the NERC Web site. Texas Regional Entity (Texas RE) reviewed the data and comments received in response to the questionnaire. This version of Texas RE's Statement of Activities and Achievements has been updated to include discussion on the areas for improvement identified by the first round of stakeholder feedback.

## **Background**

Texas RE is a functionally independent division of Electric Reliability Council of Texas, Inc (ERCOT ISO) and is the Regional Entity for the ERCOT region, through a delegation agreement with NERC. As the independent system operator (ISO) for the region, ERCOT ISO manages the flow of electric power to 21 million Texas customers – representing 85 percent of the state's electric load and 75 percent of the Texas land area. ERCOT ISO schedules power on an electric grid that connects 38,000 miles of transmission lines and more than 550 generation units. ERCOT ISO also manages financial settlement for the competitive wholesale bulk-power market and administers customer switching for 6 million Texans in competitive choice areas. ERCOT is a membership-based 501(c)(4) nonprofit corporation, governed by a board of directors and subject to oversight by the Public Utility Commission of Texas and the Texas Legislature. ERCOT's members include consumers, cooperatives, independent generators, independent power marketers, retail electric providers, investor-owned electric utilities (transmission and distribution providers), and municipal-owned electric utilities.

Formerly ERCOT Compliance, Texas RE was created and began acting as a functionally independent division of ERCOT ISO on May 18, 2007, when Texas RE's approved delegation agreement with NERC was filed with the FERC. As mandated by its delegation agreement, Texas RE performs the regional entity functions described in the Energy Policy Act of 2005 for the ERCOT region. Texas RE is authorized by NERC to develop, monitor, assess, and enforce compliance with NERC reliability standards within the geographic boundaries of the ERCOT region.

### **I. Reliability Standards Development**

#### **A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.**

Texas RE facilitates the activities of the Reliability Standards Committee (RSC), which was formed in December 2007, as well as the implementation of the Texas RE Regional Reliability Standards Development Process, as described and approved in Texas RE's May 2007 delegation agreement.

Texas RE has facilitated the development of seven draft standards/procedural changes:

- SAR-001-TRE-02 – Provision for the ERCOT ISO to Participate and Have a Vote in the Processes (submitted December 2007) – revision of Texas RE Regional Standards Development Process.

During 2008, ERCOT ISO suggested revisions to the Standards Development Process by submitting SAR-001 to correct and further improve the balance of interests considered in the process. SAR-001 proposes that ERCOT ISO, which is the Reliability Coordinator, Balancing Authority, Transmission Service Provider, Transmission Operator, Interchange Authority, Resource Planner, and Planning Authority, become a segment and receive at least a portion of one vote. Other improvements to the Standards Development Process were added to this SAR, including a clarification that the Texas RE Board of Directors, instead of the ERCOT Board of Directors, approves all SARs. Initial comments to the changed procedure were received from the public in November 2008.

A Registered Ballot Body (RBB) was formed (with 46 members) for this SAR. In January 2009, this RBB voted on and passed the provisions of SAR-001 (with 37 of the 46 members voting), giving ERCOT a  $\frac{1}{4}$  vote and making additional improvements to regional standards development processes. The ERCOT Board approved these provisions at its February 2009 meeting. The approved provisions also changed the approval authority in the ERCOT region from the ERCOT Board to the Texas RE Board. The NERC Board of Trustees approved SAR-001 on May 6, 2009 and associated procedural changes on June 3, 2009, and NERC filed its Petition for Approval of the modifications on June 8, 2009 with FERC.

- SAR-002-TRE-01 – Development and Documentation of Regional UFLS Programs (submitted April 2008). This Standard Drafting Team (SDT) has been on hold while awaiting the national team's efforts on the UFLS standard. On May 16, 2009, this SDT submitted comments to NERC on the second draft of the proposed national standard. The SDT has determined that it will not need a regional UFLS standard if the current draft of the UFLS national standard does not change. If the proposed national UFLS standard does change significantly, the SDT is prepared to continue with this SAR to draft an applicable regional standard and follow the Standards Development Process for approval.
- SAR-003-TRE-01 – FERC-Ordered Modification to ERCOT CPS2 Waiver to R2 of BAL-001-0 (submitted April 2008). This standard has been drafted and is currently out for public comment. The SDT held a technical workshop in March 2009 to help educate the ERCOT region on frequency response in general and how this standard will help ensure reliability with better frequency response. The team has met four times to draft responses to comments submitted, and all responses are or will be posted when complete. At FERC staff's request, the drafting team will meet to discuss the proposed regional standard with FERC staff in August. The team anticipates presenting the revised draft SAR to the RSC in September.
- SAR-004-TRE-01 – ERCOT-Specific Sabotage Reporting Regional Standard (submitted in April 2008) was rejected by the RSC. Much of the reason for this SAR in the beginning was to include additional appropriate entities on the list of applicability. This may now be at least partially remedied by the proposed Joint Registration Organization (JRO) agreement that is being developed for the Load-

Serving Entity (LSE) function, because it proposes to include Transmission Owners (TOs) in the list of applicability for this CIP-001 standard.

- SAR-005-TRE-01 – Remove LSE Applicability from EOP-002
- SAR-006-TRE-01 – Remove LSE Applicability from MOD-017 and MOD-018
- SAR-007-TRE-01 – Remove LSE Applicability from MOD-019, MOD-020 and MOD-021

Based upon advice and guidance by FERC staff that a regional standard cannot be used to remove a NERC function from a standard and that joint or concurrent registration should be used to address any regional issues causing applicability issues, on February 4, 2009, the RSC voted to suspend activity on SAR-005, SAR-006 and SAR-007 to allow Texas RE time to attempt to facilitate a possible JRO agreement to address the applicability issues. Texas RE is continuing to facilitate a possible JRO through the LSE Registration Working Group.

An additional SAR for Disturbance Monitoring (PRC-002) was drafted but was then placed on hold until the continent-wide standard was further developed. The continent-wide standard has since been drafted and it appears that a regional standard on Disturbance Monitoring will not be necessary.

The RSC meets once a month. The SDTs meet as necessary and include WebEx participation. Texas RE employees facilitate all meetings and are directly involved in the non-technical aspects of the drafting of the standards. To promote wider awareness of and participation in the reliability standards process throughout the ERCOT region, Texas RE launched the Reliability Standards Tracking site in 2008. The tool allows all registered parties to efficiently submit comments on SARs and draft standards during commenting periods and allows members of the Registered Ballot Body (RBB) to vote online.

Texas RE staff participates in the NERC Standards Committee and Regional Reliability Standards Working Group and has contributed to the 2009-2011 NERC Work Plan. The Texas RE Manager of Standards was nominated and accepted into the NERC Communications and Planning Subcommittee of the NERC Standards Committee. The Texas RE Manager of Standards was nominated, accepted, and selected as Vice Chair of the NERC Project 2009-01 Disturbance and Sabotage Reporting Standard Drafting Team. In addition, the Texas RE staff screens draft reliability standards from other regions. Texas RE staff also screens proposed NERC standards that may have an impact on registered entities in the ERCOT region. To date, four proposed NERC standards have been screened and brought to the notice of RSC.

Texas RE informs stakeholders of the impact and requirements of emerging NERC standards through training at the Texas RE workshops (see Section III B). In general, Texas RE works to ensure that stakeholders have the most current and accurate information on reliability standards. Procedures, forms, meetings, minutes, notes, agendas, drafts, etc., for all regional activities associated with standards are posted in a timely fashion on the Texas RE website. Market notices on major topics and upcoming meetings are sent regularly to Texas RE email lists. Articles on reliability standards topics are included in the bi-monthly Texas RE newsletter.

Texas RE faces the challenge of the upcoming change in the ERCOT region systems from zonal to nodal. Texas RE staff participates in Nodal Protocol/Reliability Standards Alignment (NPRSA) Working Group, the ERCOT region taskforce organized to align



changes in the ERCOT Protocols language for the nodal market with NERC language. Due to delays in the implementation of the nodal market, this working group was recently put on hold until the nodal implementation is complete.

**B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.**

The Texas RE Standards Development Process, as approved by NERC and FERC as Exhibit C to Texas RE's Delegation Agreement with NERC, provides for openness, due process, and balancing of interests. Participation in Texas RE's Standards Development Process is open to all organizations that are materially affected by the ERCOT region bulk power system (BPS), with no undue financial barriers, and any such entity has the right to participate by expressing an opinion, having its opinion considered, and having the right to appeal. Notice of all meetings of the Texas RE RSC and all drafting teams are provided on the Texas RE website and are open to the public.

The Texas RE Standards Development Process provides for a balance of interests, containing seven market segments and a requirement of a vote of at least two-thirds of the segments for approval of any regional standard. (As described above, a proposed revision to add an additional market segment, with a  $\frac{1}{4}$  vote, for the ERCOT ISO, has been submitted to and approved by the NERC Board and is now before FERC for approval.) No two segments can dominate, and no single segment can defeat any matter. In addition, each of the current seven segments has at least two representatives on the RSC. In 2008, 40 entities joined the RBB, representing about 25% of all ERCOT region members.

Texas RE's Standards Development Process provides for fair and due process by providing sufficient public notice of the intent to develop a standard. In addition, all proposed standards are posted on the Texas RE Standards Tracking Site for public comments. The site allows all interested parties to submit comments during the commenting period. The Process also provides an appeals process.

**C. State Regional Entity's assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Texas RE's effectiveness in reliability standards development has steadily improved since its Delegation Agreement was approved in April 2007. Texas RE's first hurdle was to educate the users, owners, and operators of the BPS of the Standards Development Process and the need for involvement in the process by all industry segments. Texas RE primarily used its website and two 2007 Texas RE Standards and Compliance Workshops to begin to educate and inform ERCOT Market Participants about the Standards Development Process. Industry interest, participation, and understanding of the Standards Development Process have grown, particularly after the RSC was formed in December 2007.

Beginning in spring 2008, Texas RE made great strides in its efficiency and effectiveness. Texas RE worked with other regional entities to launch the Regional Standards Tracking Site described above. This tool greatly improves the efficiency by which standards can be presented and evaluated by all stakeholders, as well as allowing comments to be gathered from across the ERCOT region and votes to be easily

compiled from RBB members. Texas RE also began its e-newsletter, which communicates updates, status, and other information about standards to stakeholders. Finally, Texas RE also added a new Standards Coordinator position late in the spring 2008, which allowed Texas RE to further improve the efficiency of all standards-related tasks.

Texas RE standards development staff also participated in the 2007, 2008, and 2009 Texas RE Standards and Compliance Workshops to communicate and educate stakeholders about standards development.

**D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development**

Texas RE Reliability Standards staff is leading the RSC in developing a scope of work for the RSC to include more comprehensive review and comments to the existing and proposed NERC standards under development for tracking of possible regional variances that may be necessary with the associated continent-wide efforts. Texas RE Standards staff presented the RSC with the 39 standards development projects in the current NERC workplan and asked the RSC to rank them in importance. Ten projects emerged as most important to the ERCOT region. The RSC plans to have subject matter experts (SMEs) make one presentation each month on the 10 projects for evaluation as to any potential regional standard that may be necessary. A presentation on NERC Project 2006-03 System Restoration and Blackstart (EOP-005, 006, 007 and 009) was made at the March RSC meeting. Chris Humphreys, Texas RE's critical infrastructure protection specialist, made a presentation on NERC Project 2008-06 (CIP-002 – CIP-009) Cyber Security Standards at the May RSC meeting.

Certain stakeholders submitted comments requesting improvements to the Texas RE website. The new Texas RE website (which is expected to publicly launch in July 2009) will have a Standards section that is intended to have improved clarity and navigation.

Texas RE Reliability Standards staff is considering having a regional Standards workshop (a longer and more detailed presentation than the normal standards presentation made during the Compliance workshop), to allow ERCOT region stakeholders to learn about standards in general and the process for developing new regional and national standards. If this workshop is warranted, it would occur in the latter half of 2009. Otherwise, Texas RE Reliability Standards staff will continue to include a standards section in the Compliance Workshop.

Stakeholders also submitted comments indicating that the NERC Fill-in-the-Blank standards have caused confusion. Texas RE supports the concept of revising the standards to remove the Fill-in-the-Blank components. Texas RE will develop (as necessary) any regional standards that are subsequently required.

A regional-wide announcement was sent out in December 2008 to update and solicit more RBB registrations, to ensure wider participation by all segments. This announcement was part of the ballot pool solicitation and formation efforts for SAR-001. This resulted in the 48 RBB members as of May 31, 2009.

Texas RE Reliability Standards staff will increase its participation in NERC Standards Committee meetings to stay current on all NERC Standards under Development for presentation to the ERCOT stakeholders. Texas RE has already begun participating in

the NERC Communication and Planning Subcommittee, the first meeting of which was held on March 16, 2009.

## **II. Organization Registration and Compliance Monitoring and Enforcement Program**

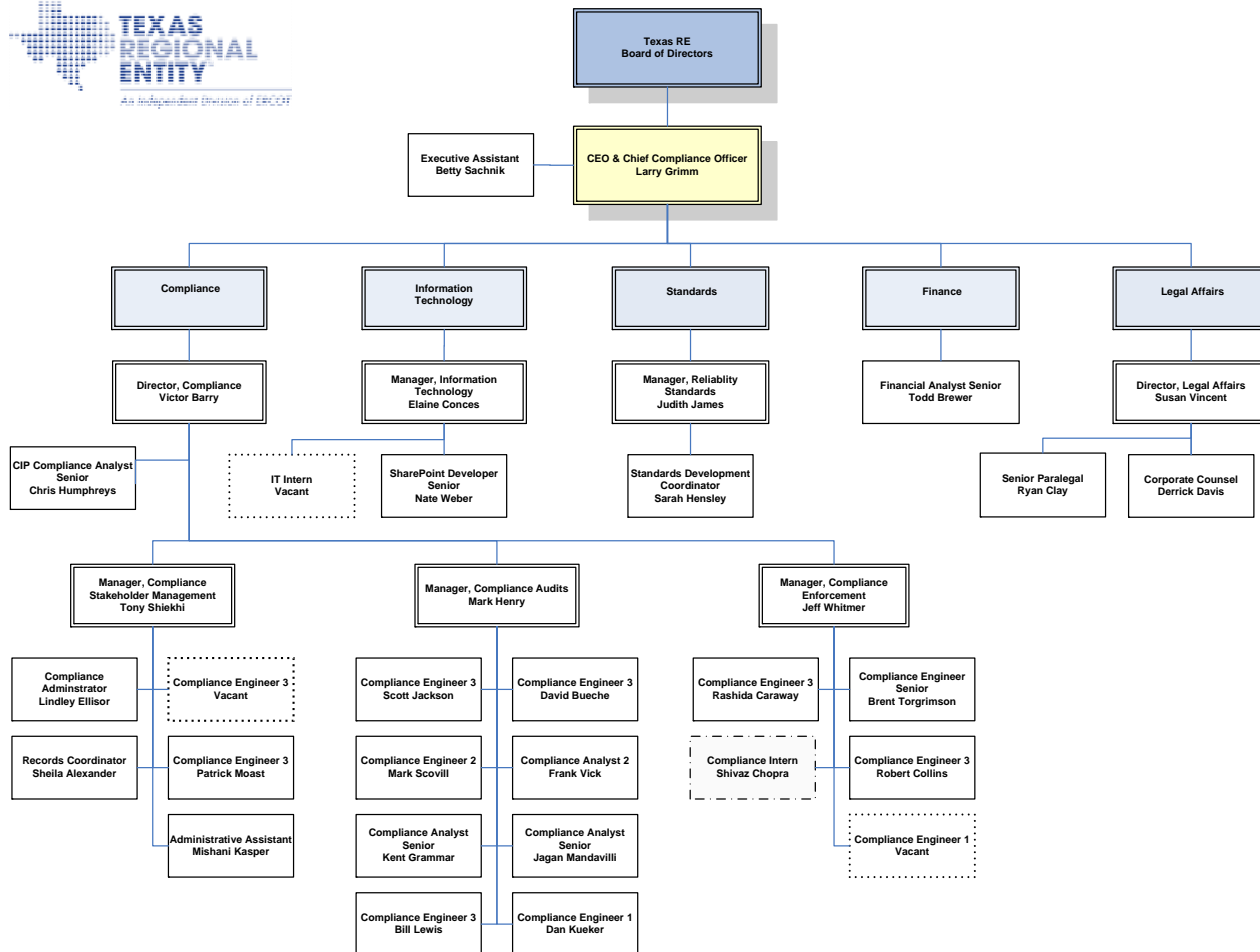
- A. Describe Regional Entity's activities and accomplishments in OC/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007. This description should emphasize quantitative information, e.g.: Staffing; numbers of registered entities registered; numbers of workshops, seminars, training and education sessions, etc. conducted; numbers of compliance audits conducted and reports processed; numbers of other compliance processes conducted and processed, e.g., spot-checks, self-certifications, etc.; numbers of notices of violation issued and processed; numbers of mitigation plans processed.**

Texas RE staffing has increased steadily since January 1, 2007, when Texas RE had only nine (9) compliance employees. At the beginning of 2008, Texas RE had 11 compliance employees, but by December 2008, Texas RE grew to 17 full time employees and one part time intern for the Organization Registration and Compliance Monitoring and Enforcement Program area (out of 25 total full time staff for all of Texas RE). At year-end of 2008 Texas RE reached 100% of planned staffing levels, but it did operate for most of 2008 with several vacancies due to the difficulty of locating and recruiting experienced candidates and turnover.

For 2009, Texas RE's board approved 5 new positions to reach 22 full time positions for the Organization Registration and Compliance Monitoring and Enforcement Program area (four of which were filled by May 31, 2009). The Compliance area has one Director and the divisions have the following employee positions:

- Compliance Auditing: 9 positions
- Compliance Enforcement: 5 positions (one open)
- Compliance Stakeholder Management (including Registration and Certification): 6 positions (one open)
- Critical Infrastructure Protection: 1 position

# Texas RE Organizational Chart



## **Organization Registration and Certification**

Texas RE has 216 registered entities, registered for 334 Functions, as of May 15, 2009. Registration activity continues to evolve with modifications to entities' registrations related to changes in their businesses, joint registration organization (JRO) agreements, and changes to the registration criteria (e.g. LSE). Texas RE experienced two major registration disputes, one of which was appealed to and is still pending with FERC. The time expended on each registration appeal has been significant, but the hope is that registration disputes should reduce over time, as long as the NERC functions and registration criteria do not change.

On-going registration activities have continued to require much more time than anticipated by Texas RE. Texas RE acknowledges the stakeholder comments received regarding the responsiveness of the Texas RE registration process to questions or problems. Texas RE will add an additional employee in 2010 to supplement its registration staff, since the additional workload from new and modified (due to mergers, acquisitions, reorganizations, and turnover in registered entity personnel) registrations is not expected to reduce.

Due to the market design of the ERCOT region, no entities have been registered for the LSE function while Texas RE works with the stakeholders to develop a solution that eliminates all gaps and minimizes overlap. Texas RE has facilitated the NERC Load Serving Entity Registration Working Group (LSERWG) for the past eight months, to obtain stakeholder feedback and try to achieve a region-wide JRO agreement for the LSE function in the ERCOT region. Although this effort has required a large time commitment from a variety of Texas RE staff, this process has enabled significant communications regarding registrations in areas where the ERCOT deregulated market model appears to conflict with the NERC Registration Criteria. Texas RE anticipates that it will have an increase in registered entities once LSEs are identified and registered, but it hopes to have reduced the potential registration disputes through the LSERWG communications and JRO process.

## **Compliance Monitoring and Enforcement**

Please see section III.B.1. for a description of the workshops, seminars, training and education sessions.

Since January 1, 2007, Texas RE has conducted and processed the following:

- Audits: 72 (5 pre-June 18, 2007)
- Spot-checks: 24
- Self-certifications: 383
- CIP self-certifications: 292
- Complaints: 3 related to NERC standard violations
- Compliance Violation Investigation (CVI): initiated 1 Texas RE led and 1 NERC-led
- Self Reports processed: 93(79 pre-June 18, 2007)

Texas RE is in the process of negotiating or completing settlement agreements with six (6) entities for 18 violations. Settlements with two of these entities for four (4) violations have been conditionally approved by NERC BOTCC. A settlement with one other of

these entities, for 11 violations, was approved by NERC BOTCC and was filed with and is pending at FERC.

Summary of the number of violations assessed and processed between January 1, 2007 and May 31, 2009:

<b>Violation Timeframe</b>	<b>Number of Possible Violations Reviewed</b>	<b>Preliminary Notice of Alleged Violations</b>	<b>Notices of Alleged Violation Filed w/ NERC (#Violations)</b>	<b>Notices of Confirmed Violation Filed w/ FERC (#Violations)</b>	<b>Number of Violations Complete</b>
2007 Pre-June 18	206	N/A	206	N/A	206
2007 Post-June 18	28	28	28	21	21
2008	44	38	3	0	0
2009	8	5	5	0	0

Summary of the number of mitigation plans processed to May 31, 2009:

<b>Mitigation Plan Progress (for the below Violation Date Periods)</b>	<b>Number of Violations with Mitigation Plans Submitted</b>	<b>Number of Violations with Accepted and Approved by NERC Mitigation Plans</b>	<b>Number of Violations with Mitigation Plans Certified as Complete by Entity</b>	<b>Number of Violations with Mitigation Plans Verified as Complete by Texas RE</b>
2007 Pre-June 18	206	206	206	206
2007 Post-June 18	28	28	25	25
2008	36	6	36	21
2009	0	0	0	0

**B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its region.**

Texas RE is following the requirements as defined by the CMEP, Rules of Procedure (ROP), and the delegation agreement between Texas RE and NERC and has used these documents to create the framework for auditing, investigating and enforcement of reliability standards.

**AUDITING:** Texas RE has created and implemented an audit program designed around the required 3 and 6 year audit cycles and remains 100% on schedule with this plan.

Texas RE also uses the complete list of NERC-approved Actively Monitored Standards and Requirements as a minimum audit scope. Texas RE has also required all Compliance employees, not just the auditors, to complete the NERC required training classes for auditors so that all employees have a general understanding of the significance of the auditing process.

**ENFORCEMENT:** In addition to the Auditing program, Texas RE has implemented a separate Enforcement program with dedicated staff. The Enforcement group processes alleged violations originating from audits, spot-checks, self-certifications, complaints, self reports, and CVIs. This includes managing settlement negotiations and hearings associated with contested violations. The Texas RE Enforcement Program is also responsible for investigating potential reliability standards violations arising from BPS disturbances, outages, self reports and complaints.

**CONSISTENCY & COORDINATION:** Texas RE also fully participates in multi-region forums to share information related to best practices as they relate to the successful implementation of compliance auditing and enforcement. These include the Regional Entity Compliance Implementation Group (RCIG) (and associated working groups), and the Organization Registration and Certification Subcommittee (ORCS). Texas RE currently chairs the RCIG, whose main purpose is to foster cooperation and coordination, and improve consistency between the regions. The RCIG directs the activity of its working groups. Texas RE also participates in the Regional Entities Management Group whose members are the chief executives of each region and oversees all program areas, including compliance and standards development.

Texas RE also directly participates in many ERCOT committees, such as ERCOT's Technical Advisory Committee (TAC), Reliability & Operating Subcommittee (ROS) and the Wind Operating Task Force (WOTF), among others, to understand and track the reliability issues and challenges for the region and to provide comments from the Texas RE perspective when there are potentially significant reliability issues and challenges that are not being adequately considered and addressed. This proactive approach to monitoring and supporting reliability in the region has expanded in 2008 as staffing increased. Texas RE's direct involvement, most recently with wind generation issues, has greatly increased the visibility of reliability issues and expedited the implementation of regional rules (ERCOT Protocols) to strengthen reliability.

**C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards**

Texas RE has adopted and implemented the NERC Uniform Compliance Monitoring and Enforcement Program (CMEP) in accordance with its Delegation Agreement with NERC. Texas RE is committed to the following five (5) guiding principles:

1. Independence
2. Ethics & Integrity
3. Inclusiveness
4. Fairness & Openness
5. Organizational Effectiveness & Efficiency

Texas RE strives to be fair, unbiased and balanced in its actions and approach to enforcing reliability standards and acts to remain above suspicion with regard to

independence and ethical issues. Texas RE internal procedures incorporate these concepts. To provide a second level of checks and balances, Texas RE requires that all violations be reviewed and verified by a group other than the group that initially identified the alleged violation. It was partially for this reason that the Enforcement group was separated from the Audit group. In addition, all potential violations and penalties are reviewed by Texas RE Legal, the Director of Compliance and the CEO prior to issuance.

In addition, NERC provides regular oversight of the Texas RE audits and its related processes and procedures. This oversight provides yet another level of review of Texas RE's work for fairness, impartiality, and consistency. Texas RE also regularly engages in discussions with NERC staff about significant violations, prior to its issuance of penalties. This provides another level of oversight with respect to impartiality and fairness as well as striving to remain consistent with other regions.

All Texas RE employees and consultants must identify all potential relationships to or conflicts with market participants or registered entities and sign an Ethics Agreement verifying their compliance with Texas RE's Code of Conduct. Texas RE follows the CMEP requirements to provide biographies of all potential auditors prior to an audit to allow the entity to be audited to review these biographies and object to any potential or perceived conflicts that could impair fairness or impartiality. Texas RE also internally bars any employee from working on any compliance work related to an entity for which they have had a relationship for at least a 6 month separation period. Texas RE's Code of Conduct requires that there be no financial relationship with a registered entity and bars involvement on any compliance work for an entity where there is a personal or family relationship.

Texas RE has implemented a Compliance Hotline to allow anyone to report compliance or ethics complaints related to Texas RE, its employees or consultants, or a registered entity. The Hotline process is designed to direct any complaints to Texas RE Legal or the board of directors as appropriate, based on the complaint. To date Texas RE has received no complaints from the Compliance Hotline and has received no complaints of any kind regarding any failure of fairness or impartiality. Because Texas RE also performs non-statutory compliance functions for the Public Utility Commission of Texas (PUC), the PUC also maintains oversight to ensure that Texas RE's non-statutory compliance is performed in a fair and impartial manner.

At the end of every audit, Texas RE provides the NERC Questionnaire to allow the audited entity to directly report to NERC any concerns with fairness, objectivity or balance, in addition to other quality measures, with respect to how Texas RE carries out its auditing function.

**D. State Regional Entity's assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed**

Texas RE's effectiveness has continuously improved over time through the enhancement of our internal processes, refinement of our organizational structure, the growing maturity of the understanding of the NERC processes, and the addition of talented staff. Added to this is our concerted effort to improve our communications with the other regions, NERC, FERC, and the registered entities which has resulted in greater efficiency and fewer misunderstandings.



As evidence of Texas RE's continuous improvement, all 2007 and 2008 audits, investigations, violations and mitigation plans are either closed or are on schedule with regularly monitored plans to meet milestones. Due to the complexity of some settlement negotiations, some preliminary violations have remained open for longer than originally anticipated. Implementing all procedures necessary to reach final NERC approval on violations and settlements has taken longer than anticipated in many instances. The work load increased throughout 2008. Texas RE has been able to improve its process efficiency with the growing maturity of the Texas RE and NERC organizations, but most Texas RE staff still must work longer hours than ideal to maintain the required schedule. The work load is expected to increase again in 2009, due to new registrations, CIP standards moving toward enforceability and the audit of Texas RE by FERC; so, Texas RE has attempted to hire all additional personnel as early in the year as possible.

In 2008, Texas RE and five (5) other regional entities formed a Consortium User Group to collaborate on and share resources for the development, modification and maintenance of portal software. As part of the Consortium User Group, Texas RE is actively participating in collaborative projects to improve the portal and to add new useful features, such as alleged violation tracking, and user-focused improvements, such as PDF records of forms. Texas RE is also participating in a Consortium User Group project to allow its portal to communicate directly with NERC's portal when the NERC portal comes on-line. Texas RE anticipates that improvements and additions to the portal will address the stakeholder comments requesting more electronic tools to improve efficiency.

**E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.**

Texas RE acknowledges stakeholder comments about the application of the NERC Registration Criteria in the ERCOT region, given the statutory, market, and system design differences. Texas RE believes that the use of the stakeholder LSEWG to help craft a solution for LSE registration in the ERCOT region to address all standard requirements without any reliability gaps has been useful. This cooperative effort between Texas RE, registered entities, and NERC has proven to be an efficient method to identify needed variances to NERC standards, regional standards, and JRO agreements that can effectively address reliability needs. Texas RE will continue to communicate with and answer questions of stakeholders regarding registrations, at its Compliance Workshops, in newsletters, and as needed, with specific groups of stakeholders.

Texas RE believes that the best means to improve effectiveness of the CMEP is for NERC and the regional entities to continue to consistently communicate and coordinate regarding new issues as they are identified or to address any confusion that may arise due to changes in standards, processes or interpretations. Even though the reliability standards have been enforceable for 24 months, they are still relatively new for both registered entities and the auditors. Implementation of the NERC Compliance Portal and its integration with the Texas RE portal, which is in-process, should also help to continuously improve Texas RE's efficiency and effectiveness. Texas RE anticipates that these portal improvements will address the stakeholder requests for electronic tools to improve efficiency.

### **III. Other Program Areas**

#### **A. Reliability Readiness Evaluation and Improvement Program**

- 1. Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.**

One Reliability Readiness Evaluation (of ERCOT ISO) was conducted in the ERCOT region. ERCOT ISO is the only RC/TOP/BA in the region.

- 2. State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Texas RE's effectiveness with respect to Reliability Readiness Evaluations has not changed since 2007. Texas RE's Reliability Readiness Program has operated effectively, but only one Registered Entity has been subject to these evaluations. NERC is now phasing out this Program.

- 3. [Discussion of proposed improvements not needed, since this program is being phased on in the first quarter of 2009.]**

N/A.

#### **B. Training, Education and Operator Certification**

- 1. Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.**

Number of workshops, seminars, training, and education sessions conducted since January 1, 2007:

- Standards and Compliance workshops - 5
- CIP workshops – 1
- Operations Training Seminar Sessions – 14

In addition to compliance workshops, Texas RE staff also facilitates the ERCOT Operator Certification Program. This includes maintaining and updating the ERCOT Fundamentals Training Manual and administering the System Operator testing process.

Texas RE has implemented a website ([www.texasre.org](http://www.texasre.org)) that provides direct public access to information about Texas RE. The site includes audit schedules, documents, newsletters, announcements, and important links to other sites, such as NERC's.

Texas RE has also established a bi-monthly newsletter that is published on our website and is sent via email to registered entities and all others who have subscribed to the Texas RE's email list.

In addition, Texas RE has also participated in numerous industry sponsored seminars and panels (e.g. National Rural Electric Cooperative Association, Gulf Coast Power Association, and Wind Coalition) to provide as much information to the industry as possible as well as to receive feedback.

Texas RE's training program continues to improve and consistently receives favorable reviews from participants. With few exceptions our workshops and seminars are fully subscribed. We have added the ability to support remote attendance using call-in numbers and WebEx presentations this year.

- 2. State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Over time Texas RE has added additional topics to its training program, such as the recent CIP Workshop, and has provided greater depth to our traditional Reliability Standards and Compliance workshops through the greater use of panel sessions and lessons learned segments.

Texas RE's operations training seminars continue to run at full capacity with some attendance from industry participants from outside our region, due to the quality of the seminars.

Texas RE strives to support and speak at seminars in the ERCOT region held by other organizations, in order to provide the most information to the widest possible group of people.

- 3. State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification.**

Texas RE will continue to request, review, and incorporate helpful feedback from stakeholders regarding Texas RE's training, education, and operator certification programs. Texas RE will also modify these programs as needed to incorporate any changes to NERC standards or procedures.

### **C. Reliability Assessment and Performance Analysis Program**

- 1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.**

Texas RE has established a role in cooperation with the technical subject matter experts at ERCOT ISO and registered entities on the preparation of seasonal and annual long term planning assessments. Texas RE reviews the reports for completeness prior to forwarding to NERC. Similarly, Texas RE staff works with the region's Reliability Coordinator (ERCOT ISO) to monitor system events for possible violations and reliability risks. Texas RE often requests data and analysis from the

ERCOT ISO to assist in the determination of the root cause of events, and any new trends or potential risk to the BPS. In addition, Texas RE also monitors reliability studies and reports from ERCOT stakeholder organizations, such as the Reliability and Operations Subcommittee (ROS) for potential risks or analysis of events.

Texas RE attends ERCOT committees, such as ERCOT's Technical Advisory Committee (TAC), Reliability & Operating Subcommittee (ROS) and the Wind Operations Task Force (WOTF) to better understand the reliability issues and challenges for the ERCOT region and to provide comments from the Texas RE perspective when it believes there are significant reliability issues and challenges that are not being adequately considered or addressed. This proactive approach to monitoring and supporting enhancements to Protocols and Operating Guides that enhance reliability or support NERC goals in the ERCOT region has expanded in 2008 as staffing increased. Texas RE's direct involvement, for example with wind generation issues, has greatly increased the visibility of new reliability issues and expedited the implementation of regional rules to strengthen reliability.

Texas RE also regularly communicates with NERC staff regarding reliability challenges of special interest in the ERCOT region (e.g. wind generation) to keep NERC apprised of risks, improvements, and on-going strategy.

On a monthly basis, Texas RE also calculates and reports on a variety of reliability performance metrics (e.g. Regional (ERCOT Protocol) measures and NERC Reliability Standards measures) to its Board of Directors. Texas RE also uses this information, when appropriate, to identify potential standards violations or declining reliability trends that need to be investigated.

**2. State Regional Entity's assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Texas RE has significantly improved in its effectiveness in this area. In 2008, as staff was added, Texas RE became much more proactive in assessing and addressing reliability performance issues. As with most new programs, a great deal of effort has gone into defining how to best work with the ERCOT ISO and other stakeholders to build this program and to increase Texas RE's ability to effect change before reliability is adversely impacted or violations occur. A key goal is to facilitate proactive consideration of matters important to reliability that may not yet be part of the mandatory requirements in NERC's developing reliability standards.

**3. State any proposals of Regional Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.**

Texas RE plans to use a continual process improvement plan for Reliability Assessment and Performance Analysis. This will be driven by the maturation of existing relationships within the region and the further strengthening of staff in 2009, including the addition of one Compliance employee with system planning expertise to assist with the reviews of the seasonal Reliability Assessments for the ERCOT region.

## **D. Situational Awareness and Infrastructure Security Program**

- 1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

Situational Awareness takes several forms for Texas RE and can most accurately be differentiated by the time frame related to awareness. To support awareness for real time events and emergencies Texas RE has staff assigned to track and monitor ERCOT ISO status, briefings and email updates and also participates in teleconferences for emergency situations, such as the hurricane that struck the Houston/Galveston area in 2008. To support long term Situational Awareness, Texas RE also monitors changes to the ERCOT BPS and how the ERCOT region is addressing these changes. A primary example of this type of Situational Awareness would be Texas RE's activities with respect to the growth of wind power in the region and how it will affect the reliability of the BPS.

Texas RE also worked with ERCOT ISO to provide real-time data to the FERC Situational Awareness center in Washington D.C., and began constructing its own Situational Awareness room in March of 2009 to enable system monitoring and awareness.

- 2. State Regional Entity's assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.**

Texas RE has continued to improve its efforts related to Situational Awareness. A key enabler was the addition of staff and the maturation of our core audit, enforcement and registration programs that allowed us to add more focus on Situational Awareness. Texas RE was also able to add a full-time critical infrastructure protection (CIP) specialist employee in 2008. The CIP specialist has been instrumental in participating in national CIP program development and the creation of a CIP program for Texas RE, and he currently serves as Chair on the CIP Compliance Working Group.

- 3. State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.**

Texas RE has begun building an improved Situational Awareness system in our new facility. This will enable Texas RE to better display and more efficiently analyze the real-time feeds of data from the ERCOT ISO and to provide better insight into the current state of the ERCOT BPS.

## **E. Budgeting**

- 1. Describe Regional Entity's activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.**

Texas RE successfully obtained NERC and FERC approval of both its 2007 and 2008 business plans and budgets and conditional approval of its 2009 business plan and budget. Similarly to the other regional entities and NERC, Texas RE has been able to improve its budgeting estimates and processes since its submission of its 2007 business plan and budget, primarily because the expectations of regional entities have become clearer over the past two years and Texas RE has gained experience in performing regional entity duties.

Texas RE followed NERC guidance and used NERC templates when it prepared its 2007 business plan and budget. At the time all 2007 regional entity budgets were developed, however, NERC and FERC expectations about regional entity performance were just beginning to evolve. No regional entity had experience in performing duties as a regional entity and Texas RE had no dedicated finance employees. Texas RE's 2007 business plan and budget was in accordance with NERC guidance, but it projected significantly higher than the actual expenditures. The primary reason for this positive variance was because this budget anticipated a full year of operations, but (a) Texas RE's Delegation Agreement was not conditionally approved by FERC until April 2007; and (b) per FERC order, the implementation of mandatory standards did not begin until June 2007. Because of this, Texas RE delayed increasing its staffing until mid-2007 and the implementation of its capital (hardware and software) projects until 2008. In addition, Texas RE had a more difficult time than anticipated in locating and hiring qualified staff, so it experienced unintended vacancies through mid-2008.

Since 2007, Texas RE gained experience as it performed its registered entity duties, in accordance with its Delegation Agreement, the NERC Rules of Procedure, NERC guidance, and FERC orders. All Texas RE employees track their time, using electronic timesheets incorporating the functional categories in the NERC Chart of Accounts and separating time spent on non-statutory duties. Each employee must submit a timesheet twice monthly, in accordance with the payroll cycle.

In 2008, Texas RE implemented budgeting and accounting guidelines, along with its other corporate and governance policies and procedures. In mid-2008, Texas RE improved its time tracking consistency by developing and providing additional training to its employees on time and expense guidelines. These guidelines were shared with NERC and the other regional entities.

As Texas RE's experience as a regional entity has grown, the time tracking system has captured the amount of time Texas RE employees spend working in each functional area. This allows Texas RE to more accurately budget for future periods. Texas RE acknowledges that the expectations and requirements of Texas RE and the other regional entities will likely continue to evolve over the next few years, but Texas RE's budget procedures and time tracking system should continue to help Texas RE to produce quality budget projections, to the extent any modifications to its duties are known.

Texas RE followed all NERC guidance and templates in preparing its 2008 business plan and budget. Because Texas RE was required to prepare and obtain board approval for the business plan and budget in mid-2007 and the reliability standards became mandatory in June 2007, Texas RE still had only a partial year of experience at the time of the 2008 budget preparation. The 2008 budget development process was improved because (a) Texas RE, NERC, and the other regional entities had the

benefit of FERC orders on the 2007 budgets; (b) Texas RE hired a financial analyst; and (c) NERC, Texas RE, and the other regional entities met to discuss and gain general consensus on the budget requirements, given the short history of the regional entity organizations.

Texas RE makes it a priority to diligently and effectively communicate with NERC regarding all required financial reports. Texas RE will continue to keep this as a priority and will continue to provide all required financial reports on or before the date due.

In 2008, Texas RE established a separate cash investment account for the segregation of any fines and penalties, to ensure such monies are not commingled with operating funds. In coordination with NERC and the other regional entities, Texas RE established a process for the accounting of fines and penalties.

Texas RE's 2009 business plan and budget is improved over its previous budgets, because Texas RE has gained significant performance experience and has the benefit of understanding the time required for all of its regional entity duties. Further, NERC and the regional entities spent even more time meeting and discussing the NERC templates and the procedures to be followed by the regional entities in their budgeting process, which improved the consistency of the business plans and budgets.

Texas RE followed all NERC guidance and templates in preparing its 2009 business plan and budget and was required to obtain Texas RE board approval before the final submission to NERC. In addition to process improvements made by NERC for the 2009 business plan and budget process, Texas RE leveraged improvements made to its time-tracking and financial operations implemented in 2008 to further improve the process for 2009. Texas RE has and will continue to make improvements to its financial function and it is confident that these changes will enhance future period budget requests.

**2. State Regional Entity's assessment of its own effectiveness in developing its business plans and budgets and in the submission of its business plans and budgets in a consistent manner with NERC and the other Regional Entities.**

Texas RE's effectiveness in developing and submitting business plans and budgets in a consistent manner with NERC and the other regional entities has steadily improved with each filing. For all of its submitted business plans and budgets, Texas RE has followed NERC guidance and templates, attended all scheduled budgeting meetings with NERC and the other regional entities, and had numerous discussions with NERC and the other regional entities regarding the preparation of the business plans and budgets. As the NERC and regional entity experience has grown, NERC improved its processes and templates and hosted more discussions with the regional entities to try to improve the consistency of the business plans and budgets. Overall, Texas RE's business plan and budget was very consistent with NERC guidance and the other regional entities.

Texas RE will continue to work with the other regional entities to strive for even greater consistency in budgeting and in the creation of uniform metrics. The improvement in the consistency of the nine start-up entity business plans and budgets, as expectations and duties for these entities have continued to evolve over

the past two years, seems quite good. Due to the varying structures of the regional entities, there could still be differences in how each organization prepares its respective operating budgets, but, particularly in light of the October 16, 2008 FERC Order on the 2009 business plans and budgets, the regional entities will continue to discuss and harmonize any remaining differences with NERC and each other.

**3. State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.**

- Texas RE suggested that NERC and the regional entities use generally accepted accounting principles to increase the level of consistency in the business plans and budgets. This requires NERC and each regional entity to prepare an operating budget and a separate capital expenditures budget. This will occur for each region's 2010 Business Plan & Budget.
- Texas RE believes that NERC and the regional entities need to standardize language and expectations regarding the acceptable components of indirect costs so that the regions can consistently budget certain expenses as either indirect (overhead) or direct (functional). With two full years of experience, and in accordance with FERC guidance, NERC and the regional entities should be able to implement a uniform expense allocation that will enhance consistency among the regional entities and NERC.
- Texas RE suggests NERC consider implementing a uniform budgeting tool, in place of the NERC-supplied Excel spreadsheet templates, to capture and project expected budgetary needs for each region. Due to the complexity of budgeting to the function level for so many entities, it would be useful if a common tool could be used by NERC and all regional entities. This could help improve efficiency and consistency by allowing each organization to prepare its budgets in a more automated fashion.
- Texas RE believes that the adoption of uniform metrics would enable the identification of trends that would be useful for projecting future resource needs. NERC and the regional entities have already started making efforts toward this goal.
- Texas RE plans to further enhance its time-tracking system, to add additional departmental codes, which will add additional detail to the financial data that will further enhance management and financial reporting capabilities. This enhancement will be in compliance with the NERC Chart of Accounts, and is expected to be useful in aiding management decision making.
- Additionally, given the experience of all the regional entities, and with the hope that its processes and templates will need fewer changes during 2009, Texas RE hopes to have time to work with other regional entities to identify and determine trended and comparative financial results for the 2009 operating year which will enhance the consistency of the regional entities' future business plans & budgets.



**ATTACHMENT 4H**

**WESTERN ELECTRICITY COORDINATING COUNCIL**

**STATEMENT OF ACTIVITIES AND ACHIEVEMENTS**

**JULY 1, 2009**



**WESTERN ELECTRICITY COORDINATING COUNCIL  
STATEMENT OF ACTIVITIES AND  
ACCOMPLISHMENTS IN CARRYING OUT ITS  
DELEGATED RESPONSIBILITIES  
FOR THE PERIOD  
JANUARY 1, 2007 THROUGH MAY 31, 2009**

**JUNE 25, 2009**

## INTRODUCTION

Pursuant to regulation 18 C.F.R. §39.3(c) of the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC) is required to submit a self-assessment of its performance three years from the date of its certification as the Electric Reliability Organization (ERO) for the United States of America. NERC must also include an assessment of the effectiveness of each Regional Entity. As part of the process of developing the Regional Entities' assessments, NERC has requested that each Regional Entity provide a Statement of Activities and Achievements for distribution and public comment. This document provides the Western Electricity Coordinating Council's (WECC) Statement of Activities and Achievements from January 1, 2007 to May 31, 2009.

Public comment on the first draft of NERC and the Regional Entities' Statement of Activities and Achievements to October 31, 2008 was solicited from January 14, 2009 to February 25, 2009 via a questionnaire posted on the NERC Web site. Public comment on the second draft was solicited from April 27 to May 29, 2009. WECC actively promoted both comment periods to its members, Registered Entities, and other stakeholders prior to these respective deadlines. WECC analyzed the data received and identified areas for improvement in its operating procedures. This third draft of WECC's Statement of Activities and Achievements has been updated through May 31, 2009 and contains discussion on the areas for improvement as identified by the first and second rounds of stakeholder feedback.

The majority of the feedback falls into the predefined sections of this Assessment document. However, WECC also received useful comments from stakeholders regarding:

1. The WECC corporate Web site [www.wecc.biz](http://www.wecc.biz).
2. Access to WECC meetings.

WECC is in the process of redesigning its corporate Web site, which will be launched in July 2009. The feedback received provided useful guidance for WECC's Web site developers. Stakeholders indicated a desire for improved navigability and documentation cataloging. Attention is therefore being paid to designing a site with more intuitive navigation and documentation storage. Other site enhancements include a more advanced search function that should also improve the user's experience. Some stakeholders raised concerns about broken links. While it is not possible to prevent this from occurring when transitioning to a new site, WECC will work to minimize the incidence of broken links. In particular, WECC will focus on links to critical documents on the FERC and NERC sites (i.e., FERC filings and NERC Standards) and any critical links on the NERC Web site that link to documents on the WECC Web site. After the launch of the new Web site, any further refinements to site structure will be posted on the homepage to alert users of any potential changes to existing links.

While some stakeholders commented favorably about WECC meetings, many indicated the need for WECC to provide increased remote access through the use of Webinars and WebEx. WECC began Webcasting all of its Standing Committee meetings in October 2008 and is considering extending the use of that medium.

## **BACKGROUND**

WECC is the Regional Entity responsible for the entire Western Interconnection. WECC is the successor to the Western Systems Coordinating Council (WSCC), which was formed in 1967 by 40 electric power systems serving all or part of the 14 Western states and British Columbia, Canada. WECC was formed on April 18, 2002 by the merger of the WSCC, Southwest Regional Transmission Association, and Western Regional Transmission Association. WECC continues to be responsible for coordinating and promoting electric system reliability as had been done by the WSCC since its formation.

WECC is geographically the largest and most diverse of the eight Regional Entities that have Delegation Agreements with NERC. WECC's service territory extends from Canada to Mexico. It includes the provinces of Alberta and British Columbia, the northern portion of Baja California, Mexico, and all or portions of the 14 Western states between. Due to the vastness and diverse characteristics of the region, WECC and its members face unique challenges in coordinating the day-to-day interconnected system operation and the long-range planning needed to provide reliable electric service across nearly 1.8 million square miles.

## **MEMBERSHIP**

WECC has 253<sup>1</sup> members divided into the following seven membership classes:<sup>2</sup>

1. Large Transmission Owners
2. Small Transmission Owners
3. Transmission Dependent Energy Service Providers
4. End Users
5. Representatives of State and Provincial Governments
6. Canadian Members
7. Members at large

Membership in WECC is open to any person or entity that has an interest in the reliable operation of the interconnected Bulk Electric System (BES) in WECC's region. Membership of WECC is not a requirement for participation in the WECC standards development process.<sup>3</sup>

## **STATUTORY FUNCTIONAL SCOPE**

WECC has been approved by FERC as a Regional Entity with authority — pursuant to the WECC/NERC Delegation Agreement — to create, monitor, and enforce standards for the reliable operation of the BES in the Western Interconnection.

WECC's role as Reliability Coordinator was recognized by FERC through its acceptance of NERC's Compliance Registry.<sup>4</sup>

## **STAFFING**

Since January 2007, WECC's headcount has almost tripled from 47 employees to 135 employees. The scale of increase is primarily a result of WECC's Reliability Coordination Strategic Initiative (RCSI) and the Compliance Monitoring and Enforcement Program (CMEP). WECC does employ the resources of consultants and contractors from time-to-time as the workload demands.

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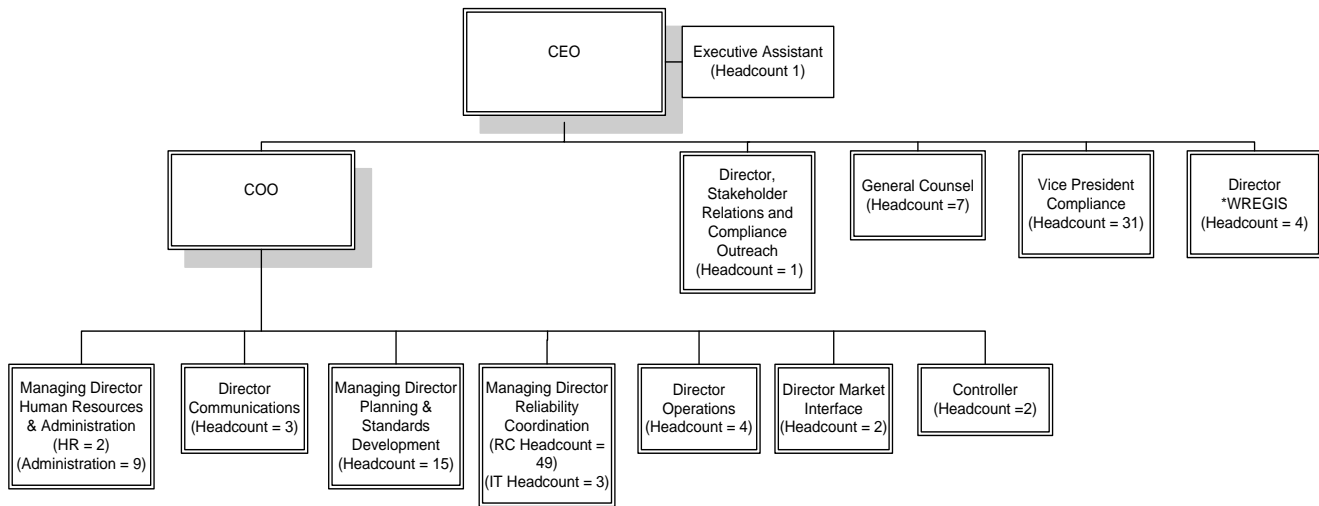
<sup>1</sup> As of May 31, 2009.

<sup>2</sup> For purposes of voting for Board representation, all Canadian members of WECC form "Class 6." For all other purposes, Canadian members participate in member classes 1–5 and 7 according to their characteristics. See Section 6.2.1 of the WECC Bylaws.

<sup>3</sup> Non-WECC members may participate in standards drafting teams, and Interested Stakeholders may vote on Regional Reliability Standards. Interested Stakeholder voting is covered in Section 8.6 of the WECC Bylaws.

<sup>4</sup> NERC 119 FERC ¶ 61,059 (2007) Order on Rehearing.

## WECC ORGANIZATIONAL CHART<sup>5</sup>



**Actual Headcount: 135**  
**\*WREGIS is non-statutory**

<sup>5</sup> As of May 31, 2009.

## I. Reliability Standards Development

### A. Describe Regional Entity's activities and accomplishments in regional reliability standards development since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.

Prior to the passage of the Energy Policy Act of 2005 and the addition of Section 215 to the Federal Power Act, the reliability of the Western Interconnection was managed through the cooperative efforts of Western entities that agreed to bind themselves contractually to certain criteria under the Reliability Management System Agreements (RMS Agreements). Prior to January 1, 2007, WECC anticipated FERC approval of mandatory national reliability standards and began an effort to convert certain Regional Criteria in the RMS Agreements to Regional Reliability Standards under Section 215 of the Federal Power Act. WECC also initiated efforts to develop a Regional Reliability Standard to address Automatic Time Error Correction (ATEC) in the Western Interconnection.

#### Regional Reliability Standards from the RMS Agreements

WECC identified eight criteria from the RMS Agreements that met the statutory requirements for development of Regional Reliability Standards. Those eight criteria covered components that were either not addressed in NERC's Continent-wide Reliability Standards or included more stringent requirements in the Western Interconnection. Due to timing concerns, WECC submitted the first set of Regional Reliability Standards (as Tier 1 Standards) to NERC with necessary formatting changes but with no modification to the RMS Agreements' content. Stakeholders have indicated that certain of WECC's Tier 1 Standards do not make clear to which entities they apply. WECC recognizes that some of the translations result in old terms being carried forward; however, this has been addressed during the redrafting process. NERC filed the WECC Regional Reliability Standards with FERC on March 26, 2007.

FERC approved the first eight WECC Regional Reliability Standards on June 8, 2007<sup>6</sup>, with an effective date concurrent with 83 NERC Continent-wide Reliability Standards. FERC ordered WECC to complete its Regional Reliability Standards development process to create permanent replacement standards within one year of FERC approval. On April 16, 2008, WECC's Board of Directors (Board) approved seven Regional Reliability Standards<sup>7</sup> replacing the first set of eight. Since that time, WECC has been actively engaging NERC through NERC's *Regional Reliability Standards Evaluation Procedure*. The NERC Board of Trustees has approved all seven replacement WECC Regional Reliability Standards. On February 9, 2009, NERC submitted four of the seven replacement WECC Regional Reliability Standards to FERC for approval:

1. FAC-501-WECC-1 — Transmission Maintenance
2. PRC-004-WECC-1 — Protection System and Remedial Action Scheme Misoperation

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<sup>6</sup> Mandatory Reliability Standards for the Bulk-Power System, 118 FERC ¶ 61,218 (March 16, 2007), *order on reh'g*, 120 FERC ¶ 61,053 (July 19, 2007).

<sup>7</sup> The requirements of PRC-STD-001-1 (Certification of Protective Relay Applications and Settings) and PRC-STD-003-1 (Protective Relay and Remedial Action Scheme Misoperation) were merged into a single replacement standard, PRC-004-WECC-1.

3. VAR-002-WECC-1 — Automatic Voltage Regulators
4. VAR-501-WECC-1 — Power System Stabilizer

On March 25, 2009, NERC submitted two additional replacement WECC Regional Reliability Standards to FERC for approval:

1. BAL-002-WECC-1 — Contingency Reserves
2. TOP-007-WECC-1 — System Operating Limits

WECC continues to work with NERC to get the remaining replacement WECC Regional Reliability Standard (IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow Relief) submitted to FERC.

### **Canada**

The Canadian provinces account for approximately 15 percent of the Western Interconnection's load. Canadian entities play a vital role in the function of WECC and in the reliability of the system. Alberta and British Columbia are separate jurisdictions with different regulatory structures.

WECC is working with the Alberta Electric System Operator and the government of Alberta, as well as the government of British Columbia and the British Columbia Transmission Corporation, to provide assistance as they consider whether and how to develop and enforce reliability standards.

RMS Agreements have been signed by entities in Alberta and British Columbia and continue in force. WECC does not have authority under U.S. law to impose penalties in Canada.

### **Mexico**

The Mexican national utility, Comisión Federal de Electricidad (CFE), has a seat on the WECC Board. As the regulatory systems common in the United States and Canada are not present in Mexico (CFE is a department of the Mexican federal government), WECC's standards and compliance efforts in Mexico rely on the RMS Agreements, to which CFE is a signatory.

### **Automatic Time Error Correction**

WECC identified the need for a Regional Reliability Standard to address ATEC issues in the West. WECC followed the *Process for Developing and Approving WECC Standards*, which resulted in WECC Board approval of a WECC ATEC Regional Reliability Standard on July 27, 2007. The NERC Board of Trustees approved the WECC ATEC Regional Reliability Standard on March 26, 2008. FERC issued a Notice of Proposed Rulemaking (NOPR) on the proposed WECC ATEC Regional Reliability Standard on November 20, 2008.<sup>8</sup> Public comments on the NOPR were due January 12, 2009. On May 21, 2009, FERC issued Order No. 723 approving the WECC ATEC Regional Reliability Standard. The rule will become effective 30 days after publication in the Federal Registry. The rule was published in the Federal Registry on May 28, 2009. In its Final Rule, FERC directed the ERO to revise the violation risk factors from lower to medium. They also directed the ERO to submit new violation severity levels for each requirement and sub-requirement that has been assigned a violation risk factor. In addition, FERC directed WECC to develop several modifications to the Regional Reliability Standard.

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<sup>8</sup> Notice of Proposed Rulemaking, 125 FERC ¶ 61,200 (November 20, 2008)(Western Electricity Coordinating Council Regional Reliability Standard Regarding Automatic Time Error Correction).

## **Frequency Responsive Reserves**

On May 15, 2008, in adherence with the *Process for Developing and Approving WECC Standards*, WECC announced its intent to begin development of a Frequency Responsive Reserves Regional Reliability Standard. On July 22, 2008, a drafting team was formed and held the first of several meetings. On October 21, 2008, also in adherence with the *Process for Developing and Approving WECC Standards*, the Frequency Responsive Reserves drafting team notified the WECC Standards Request Routing Committee (SRRC) that, in the opinion of the drafting team, a Regional Reliability Standard was not appropriate at this time. The Frequency Responsive Reserves drafting team cited the following reasons for the recommendation:

- The decision to draft a standard was made using data that was flawed and incomplete. Subsequent data indicates the earlier results are in question.
- Drafting a standard (with associated penalties) based on flawed and incomplete data may result in unintended reliability consequences while imposing financial liability on entities based on incorrect data and associated conclusions.
- Implementation of a criterion (as opposed to a standard) grants WECC the opportunity to review the accuracy and efficacy of the resultant work product before imposing unknown reliability risks on the grid.
- Current data collection capabilities may be inadequate to glean the needed data granularity on which penalties associated with a standard would be based.

The SRRC concurred with this recommendation and notified the WECC Board and WECC community. The drafting team was retained and is currently working on the development of a WECC Regional Criterion to address Frequency Responsive Reserves. The drafting team is adhering to its original standards development schedule wherever possible.

## **Automatic Voltage Regulator (AVR)**

On September 15, 2008, in adherence with the *Process for Developing and Approving WECC Standards*, WECC announced the formation of a WECC drafting team to develop a WECC Automatic Voltage Regulators Regional Reliability Standard. This drafting team was formed to address concerns about the existing AVR standards raised by stakeholders. A drafting team has been selected and the first meeting of the drafting team was held on March 10, 2009 via teleconference. The next meeting of the drafting team is scheduled for June 8-9, 2009.

### ***B. Explain how the Regional Entity has the ability to develop regional standards and has a standards development process that provides for openness, due process and balancing of interests.***

In 1999, the WSCC developed a document entitled *Process for Developing and Approving WSCC Standards*. This document identified WSCC standards as including the WSCC's operating, planning, and market interface policies, procedures, and criteria. The document also described the associated measurements for determining compliance and was updated several times before it was submitted as Exhibit C of WECC's initial Delegation Agreement. Consequently, WECC had the infrastructure in place to address and develop the proposed Regional Reliability Standards. Only



limited modifications were required to the version of *the Process for Developing and Approving WECC Standards* that was submitted to comply with FERC's direction regarding Exhibit C to the *WECC Delegation Agreement*.

In response to FERC's April 19, 2007 order accepting the Regional Delegation Agreements, WECC modified its *Process for Developing and Approving WECC Standards* to allow participation by non-WECC members. Initially, voting on WECC Regional Reliability Standards was limited to WECC members. This restriction, however, was tempered by WECC allowing membership to all Western stakeholders. WECC modified its Bylaws and *Process for Developing and Approving WECC Standards* to allow stakeholders to participate in the development of Regional Reliability Standards and to vote on the Regional Reliability Standards' approval. All Western Interconnection stakeholders are included in WECC's two voting classes: Transmission Providers and Transmission Customers. The influence of particular classes as identified in NERC's ballot bodies are thus diluted by the inclusion of multiple stakeholder groups in either of the two classes.

A subsequent FERC order issued on March 21, 2008, required WECC to make a further modification to its *Process for Developing and Approving WECC Standards* and remove a formal definition of "Interested Stakeholders" to further open the WECC Regional Reliability Standards development process. NERC filed the necessary revisions to the WECC Delegation Agreement on July 21, 2008. These revisions were approved by FERC on December 19, 2008.

**C. *State Regional Entity's assessment of its own effectiveness in reliability standards development since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

WECC believes it has been very effective in the development of Regional Reliability Standards since January 1, 2007. WECC took a proactive approach to transfer eight key aspects of the RMS Agreements to Regional Reliability Standards in time to meet the effective date of 83 NERC Reliability Standards. WECC has responded to FERC's directive and approved permanent replacements to the original eight Regional Reliability Standards. WECC has also completed development and approval of the WECC ATEC standard.

WECC provides input into the NERC Reliability Standards development process. WECC staff monitors all NERC standards development activities and communicates important deadlines to Western stakeholders. WECC encourages volunteer participation from its members on all NERC Reliability Standard drafting teams. To date, representation by WECC members on NERC Reliability Standards drafting teams has been excellent. WECC staff also participates on some NERC drafting teams as members or observers.

WECC staff has triaged all projects identified in the *NERC Reliability Standards Development Plan: 2008-2010*, identifying the projects with the greatest potential impact on the Western Interconnection. As NERC Reliability Standards are posted for comment, WECC technical subgroups review the proposed Reliability Standards and provide comments. When a NERC Reliability Standard is balloted, WECC staff develops a position paper that is circulated to Western stakeholders. This paper discusses any WECC concerns identified by the technical subgroups or Western stakeholders, and how those concerns were addressed by the NERC drafting team.

**D. State any proposals of Regional Entity to improve its effectiveness in reliability standards development.**

While WECC has been effective in this area, the increased profile of compliance with reliability standards has exposed the need for additional improvements in communication and clarity of the language in the proposed reliability standards. Recognizing the increasing volume of work in the standards development area, WECC filled ½ an FTE in the Standards Department in late 2008. Adding this ½ FTE allowed the department to improve its efforts in the triage and communication of NERC standards activities, while continuing to devote the necessary resources to the regional standards development efforts.

In order to facilitate communications, WECC is in the process of a complete Web site redesign. The Standards Department will take advantage of the improvement in Web site functionality to enhance communications with entities in the Western Interconnection. The new Web site will make more information available in an easily-accessible format. The WECC Web site will have a redesigned Standards page that will include information on all Regional Reliability Standards and Regional Criteria under development. WECC will use the Web site to communicate the information from the WECC triage of the *NERC Reliability Development Plan: 2009-2011*.

WECC continues to rely on Western Interconnection volunteer support for the vast majority of WECC's participation in NERC standards development activities. Entities in the Western Interconnection have voiced their preference for volunteer participation rather than increased WECC staff to fill this role. If the volunteer pool begins to dry up, or if the preference of the entities in the Western Interconnection changes and they desire more WECC staff participation in standards development activities, WECC will propose additional positions as needed in the department.

During the public comment process, stakeholders indicated that the NERC fill-in-the-blank standards have caused confusion. WECC supports the concept of revising the standards to remove the fill-in-the-blank components. WECC will develop (as necessary) any Regional Reliability Standards that are subsequently required.

In addition, several stakeholders commented about the difficulty of participating in the standards development process owing to time and travel constraints. WECC also recognizes this is an issue for its stakeholders. WECC's standard drafting team meetings can be accessed through Adobe Acrobat Connect Pro, which allows remote participation.

**II. Organization Registration and Compliance Monitoring and Enforcement Program**

FERC approved WECC as a Regional Entity on April 19, 2007 with authority, pursuant to the Delegation Agreement between WECC and NERC to — among other things — create, monitor, and enforce standards for the reliability of the BES in the Western Interconnection.<sup>9</sup>

While mandatory reliability standards were introduced almost two years ago, 2008 was the first full year of WECC's CMEP and the program is continually improving. The effectiveness of implementing and running the CMEP is difficult to quantify in this 'start-up' period as baselines against which progress can be measured are still being

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<sup>9</sup> NERC, 119 FERC ¶ 61,060 (2006), *order on reh'g*, 120 FERC ¶ 61,260 (2007). The Delegation agreement went into effect on May 2, 2007.

established. It is expected that the 2014 NERC assessment will contain more statistically viable measures of effectiveness.

In the meantime, the only baseline WECC has relates to the effect of its comprehensive outreach program that was undertaken pre-June 18, 2007. The internal compliance reviews, undertaken by Registered Entities, that led to 3,320 self-reported violations can be attributed, to a large degree, to WECC's outreach efforts.

**A. Describe Regional Entity's activities and accomplishments in OC/CMEP since January 1, 2007. Include discussion of improvements to activities and operations since January 1, 2007.**

Compliance and enforcement activities are carried out by the WECC Compliance staff and are independent of all users, owners, and operators of the BES and from the WECC Hearings staff.

**Staffing**

WECC's Compliance Department was established at the beginning of 2007 with fewer than five employees. As of May 31, 2009 the WECC Compliance Department has 31 full-time employees:

- 12.....Compliance Program Administration
- 1.....Compliance Registration
- 3.....Compliance Auditing
- 7.....Compliance Enforcement
- 5.....Compliance Management
- 3.....Critical Infrastructure Protection (CIP)

The department has three vacancies:

- 1.....Compliance Engineer – Operations
- 1.....Compliance Engineer – Relays
- 1.....Compliance Engineer - Registration

The WECC Compliance Department also uses the services of seven contractors to address specific issues and provide overload support. Collectively, the team has significant experience in transmission and generation operations and in maintenance of the Western Interconnection. The team has several technical experts on transmission planning, transmission and power scheduling, control center operations and dispatch, vegetation management, transmission and generation protection, and cyber security.

**Registration**

As of May 31, 2009, WECC has 466 Registered Entities covering 1,248 functions. To date, 54 Western Interconnection registration disputes have been brought forward to either WECC or NERC. WECC resolved 30 of these disputes without appeal. NERC resolved one registration dispute, and one was appealed to FERC.<sup>10</sup> Eleven disputes are currently on hold. Two of these disputes are pending NERC and WECC negotiations with the entities. In addition, WECC believes that its Load Serving Entity (LSE) Distribution Provider (DP) project, described below, will bring resolution to some of these cases. Nine potential registration disputes are currently under discussion at the regional level.

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<sup>10</sup> New Harquahala Generating Co., LLC, 123 FERC ¶ 61,173 (May 16, 2008).

Total Registered Entities	466
Total Functions Registered	1,248

Total Registration Disputes	54
Disputes resolved within WECC via negotiations between compliance staff and entity	30
Appealed to NERC (WECC prevailed)	1
Appealed to NERC (WECC prevailed)/appealed to FERC (NERC prevailed)	1
NERC Appeals on-hold (NERC and WECC are working with the entities to resolve)	2
NERC Appeals on-hold (will possibly be resolved via the LSE/DP Project)	11
WECC disputes to be resolved (require more technical analysis and/or review)	9

### **Outreach**

Before mandatory standards were introduced on June 18, 2007, WECC initiated educational and outreach efforts with its members and interested stakeholders in the Western Interconnection. WECC held five workshops that were attended by a total of 780 participants, prior to the effective date of the FERC-approved Reliability Standards. These early efforts led to the development of the WECC Compliance User Group (CUG). Establishing the CUG provided a forum in which WECC could discuss its Compliance Program and trends. WECC Compliance staff augments CUG meetings by hosting monthly “Open Mic” calls where more immediate issues can be discussed and Registered Entities can ask pressing questions. Prior to May 31, 2009, WECC hosted six CUG meetings that were attended by a total of 1435 participants.

In April 2008, WECC expanded its outreach program when it established the Critical Infrastructure Protection User Group (CIPUG). The creation of the CIPUG provided a forum for sharing specific information about compliance with the Critical Infrastructure Protection Standards. Since then, approximately 1200 participants have attended eight CIPUG workshops.

While WECC has pursued a policy of outreach, members and Registered Entities have raised concerns about the lack of specific information regarding compliance findings, sufficiency of evidence, interpretation of standards, and best practices. WECC, however, concluded that it could not respond to such inquiries due to confidentiality restrictions. In response to the situation, several Registered Entities established the Western Interconnection Compliance Forum (WICF) to share knowledge and lessons learned regarding compliance matters, and to collectively develop best practices. While WICF is not affiliated with WECC, WECC has supported the creation of WICF by providing a venue for meetings held concurrently with the CUG and CIPUG. WECC Compliance staff does not attend these meetings unless expressly invited. Recommendations and suggestions developed by WICF and pertaining to WECC’s CMEP are presented to WECC’s Compliance Management via the WICF Steering Committee.

In August 2008, the WECC Board recognized the need for a Board-level interface with WICF. Tim Newton, a WECC Non-Affiliated Director, agreed to serve as the WECC Board Liaison to WICF. Mr. Newton and the WICF Chair each provide an update about WICF at each WECC Board meeting. This update provides an additional perspective to the Board members.

In recognition of the need for a dedicated line of communication between WECC and its stakeholders, in October 2008 WECC appointed Taud Olsen as Director of Stakeholder Relations and Compliance Outreach. Mr. Olsen manages WECC's compliance outreach and compliance training programs. The position works closely with WECC Compliance staff but reports directly to WECC's Chief Executive Officer.

### Web Portal

During 2008, the WECC Compliance Department developed a new compliance Web site and Web portal for the submittal of compliance data. A two-month transition period began on August 1, 2008 and allowed entities to submit their compliance data via the Web portal or via the traditional process. The Web portal "went live" on October 1, 2008. Since then, all compliance data submittals have been made via the Web portal. In preparation for this, the WECC team conducted seven portal training workshops for Registered Entities.

### Compliance Monitoring Processes

Since January 1, 2007, WECC has been growing into its expanded role implementing the FERC-approved CMEP. WECC is the largest of the eight Regional Entities in terms of the geographic area covered, the number of Registered Entities, and the number of Registered Functions. The sheer magnitude of the compliance and enforcement workload generated since the mandatory penalty and sanction period began has, at times, exceeded the WECC Compliance staff's workload capacity. This was due, in part, to the volume of self-reported violations.

WECC views its outreach efforts as a success in that it led to a broad industry effort to self-evaluate compliance. WECC received 3,320 self-reported possible violations prior to the effective date of the FERC mandatory standards on June 18, 2007. WECC received an additional 1,291 after June 18, 2007. This accounts for approximately 88.9 percent of the possible violations processed by WECC. Following a review, WECC determined that more than 1,500 of the self-reported violations were erroneous and were subsequently dismissed or retracted. Of the pre-June 18, 2007 self-reported violations, 211 have led to enforceable violations due to incomplete or untimely completion of mitigation efforts. WECC is still processing 28 (0.8 percent) of these self-reported violations.

### VIOLATIONS IDENTIFIED THROUGH COMPLIANCE MONITORING PROCESSES

Monitoring Process	Pre		Post		Total	
	#	%	#	%	#	%
Compliance Audit	28	0.8%	289	15.7%	317	6.1%
Exception Reporting	0	0.0%	25	1.4%	25	0.5%
Investigation	0	0.0%	0*	0.0%	0	0.0%
Periodic Data Submittals	10	0.3%	5	0.3%	15	0.3%
Self-Certification	1	0.0%	214	11.6%	215	4.1%
Self-Report	3,320	98.8%	1,291	70.3%	4,611	88.7%
Spot Checking	0	0.0%	13	0.7%	13	0.3%
Complaints	0	0.0%	0	0.0%	0	0.0%
Total Violations	3,359	100.0%	1,837	100.0%	5,196	100.0%

(\*) Three violations initially discovered by Self-Report and Compliance Audit were confirmed after an Investigation.

## STATUS OF VIOLATIONS

	Pre June 18	Post June 18	Total YTD
Total Possible Violations Reviewed	3,359	1,837	5,196
Total Dismissed Violations	1,549*	727	2,276
Total Enforceable Violations	0	1,110	1,110
Total Mitigated Violations	1,782	781	2,571
Total Notices of Alleged Violation and Proposed Penalty or Sanction **	n/a	669	669
Total Notices of Confirmed Violations **	n/a	178	178

(\*) Includes 211 Pre-June Violations moved to Post-June due to completed Mitigation Plan rejected or past due submission.

(\*\*) Number of Violations

Between January 1, 2007 and December 31, 2008, WECC participated in 90 audits: 60 off-site and 30 on-site. Of the 30 on-site audits, 23 were conducted by WECC, three were co-conducted by WECC and the SERC Reliability Corporation, one was co-conducted by WECC and the Midwest Reliability Organization, and the remaining three were conducted by NERC. Of the 23 on-site audits conducted by WECC, 21 on-site reports have been finalized. The remaining two were conducted by WECC prior to June 18, 2007 and do not require a report.

Of the 2007-2008 60 off-site audits, WECC has finalized all 60 audit reports. On the completion of each audit WECC reviews its process and procedures. This process of continuous improvement has enhanced the consistency, efficiency, and efficacy of WECC's audit process.

	On Site	Off Site	Total 2007-2008
Total Audits Scheduled	30	60	90
Total Audits Conducted by Other Organizations	7	-	7
Total Audits Conducted by WECC	23*	60	83
Audit Reports Sent to NERC	21	60	81
Audit Reports Drafted in Review	-	-	-
Total Possible Violations Identified	219	62	281

(\*) Two audits were conducted prior June 18, 2007 and do not require a report.

Since January 1, 2009, WECC has conducted 50 audits: six on-site and 44 off-site. Of the six on-site audits, two non-public audit reports have been finalized. The remaining four non-public audit reports and six public audit reports are being drafted or have been sent to the Registered Entity for review. Of the 44 off-site audits, 11 non-public audit reports and 11 public audit reports have been finalized. 33 non-public audit reports and 33 public audit reports are being drafted or have been sent to the registered entity for review.

The 140 audits have identified a total of 289 possible violations of reliability standards.

Since January 1, 2007, WECC has conducted 278 spot-checks and processed 745 Registered Entity self-certifications. These two monitoring processes combined have uncovered an additional 227 possible violations.

To date, WECC has initiated seven formal Compliance Violation Investigations (CVIs). Three are complete and the reports have been finalized. Three are open. The remaining investigation has been assumed by NERC pursuant to Section 3.4 of the CMEP. Accordingly, WECC has ceased its activity relative to this remaining CVI and considers this investigation closed as a WECC CVI. Of the six CVIs WECC has conducted, two were related to vegetation issues (FAC-003) resulting in possible violations, and two were related to transmission protection issues (PRC-005) with one resulting in a possible violation and one finding no violation. One CVI dealt with a metering concern (BAL-005) and WECC found no violation. NERC notified WECC on January 23, 2009 of their rejection of WECC's findings and this issue is currently open. The sixth CVI is ongoing. WECC Compliance staff has reviewed other system events to determine whether a CVI was warranted but found no need to initiate an investigation in any other instance.

### **Mitigation Plans**

WECC has reviewed mitigation plans covering 4,989 violations. WECC staff has approved mitigation plans for 4,668 violations. Registered Entities have submitted certifications of completed mitigation plans for 3,580 violations. WECC has reviewed 99 percent of the certifications, corresponding to 3,545 violations. Of the 3,545 violations with certifications, WECC rejected 214 due to lack of evidence or incompleteness. An additional 35 violations with certifications are still in the review process.

Of the 4,989 violations with mitigations plans approved by WECC, 211 relating to pre-June 18, 2007 self-reported violations are now subject to sanctions due to the Registered Entity's failure to complete compliance activities. Of these 211 violations, 32 violations with mitigation plans remain open as of May 31, 2009.

Number of Violations with:	Pre June 18	Post June 18	Total YTD
Mitigation Plans Submitted	3,345	1,644	4,989
Mitigation Plans Accepted and Approved	3,167	1,501	4,668
Mitigation Plans Certified as Completed	2,396	1,184	3,580
Mitigation Plans Verified as Completed	1,939	1,005	2,944

### **Notice of Alleged Violation and Proposed Penalty or Sanction (NAVAPS)**

Following review of all possible violations identified through the eight processes specified in the WECC CMEP, WECC may issue a NAVAPS if it determines that there is sufficient evidence to support an alleged violation. As of May 31, 2009, WECC has issued NAVAPS to Registered Entities covering 669 violations.

WECC is issuing NAVAPS to Registered Entities that self-reported violations prior to June 18, 2007 in cases where there are subsequent issues with the entity's progress toward compliance under its mitigation plans (pre-to-post violations). As of May 31, 2009, WECC has issued NAVAPS for 201 pre-June 18, 2007 self-reported violations

In addition to the pre-June 18, 2007 self-reported violations, WECC identified a total of 1,837 violations occurring after June 18, 2007. Registered Entities self-reported 1,291 violations (70 percent). Following review, WECC dismissed 591 of the self-reported violations due to the lack of substantiating evidence that a violation existed. Of the 700 remaining violations, WECC has issued NAVAPS corresponding to 316 self-reported violations.

### **Notice of Confirmed Violations (NOCV)**

Subsequent to a Registered Entity's acceptance of the determinations set forth in the NAVAPS, an NOCV is issued. As of May 31, 2009, WECC has issued NOCVs for 178 violations.

### **Settlements and Hearings**

To date, 25 Registered Entities have settled in principle with WECC a total of 262 violations. WECC has not held nor scheduled hearings on any alleged compliance violations. Five of the Registered Entities that have disputed findings in their NAVAPS have deferred hearings during settlement discussions.

## ***B. Describe how the Regional Entity has the ability to enforce reliability standards and to provide for an adequate level of bulk power system reliability in its Region.***

WECC's authority to enforce reliability standards is based on the authority granted in its Delegation Agreement with NERC. FERC's approval of the Delegation Agreement conferred authority to WECC to manage and enforce compliance with FERC-approved reliability standards and to apply penalties up to the extent of FERC's civil penalty authority. Additionally, WECC develops Regional Criteria and practices to improve the functioning and efficiency of the Western Interconnection. This combination provides a forum for addressing system-wide issues and an oversight role to promote the reliable operation of the Western Interconnection.

### **Governance**

WECC has a hybrid Board of Directors,<sup>11</sup> including both Non-affiliated Directors and a balanced group of Stakeholder Directors. The WECC Board has delegated the implementation of the CMEP to the WECC Compliance staff. At its meeting in April 2009, the WECC Board voted to form a Compliance Committee and approved its charter. The WECC Compliance Committee charter provides that the committee will assist the Board in providing oversight of WECC's compliance function and a forum for communication between the compliance function and the WECC Board.

### **Funding**

During this period of growth, the WECC Compliance Department has received substantial support from the WECC Board. Since 2006, the WECC Board has approved budget increases to implement the CMEP. In both 2007 and 2008, the WECC Board also approved two mid-year spending increases for the WECC Compliance Department, recognizing the difficulties associated with implementing new compliance enforcement efforts. The 2009 Compliance Department budget increased by 35 percent when compared to the 2008 budget.

### **Process and Training**

WECC has created and implemented an audit program designed around the required three- and six-year audit cycles and, with the exception of two on-site and eleven off-site audits, remains on schedule with this plan. WECC also uses the

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<sup>11</sup> Federal Power Act Section 215(e)(4), 16 U.S.C. ¶ 824o(e)(4) (2005).



complete list of NERC-approved Actively Monitored Standards and Requirements as a minimum audit scope. WECC requires all auditors to complete the NERC-required training classes for auditors. In addition, all compliance staff members are encouraged to undertake the same training so that they have a general understanding of the significance of the auditing process.

### **Coordination**

WECC fully participates in multi-region forums to share information related to best practices for the successful implementation of compliance auditing and enforcement. These include the Regional Entity Compliance Implementation Group (RCIG) and its associated working groups, and the Organization Registration and Certification Subcommittee. The RCIG's main purpose is to foster cooperation and coordination, and to improve consistency among the regions. The RCIG directs the activity of its working groups. WECC also participates in the Regional Entities Management Group whose members are chief executives of each Region and oversee all program areas including compliance and standards development.

### **C. Describe how the Regional Entity has fair and impartial procedures for enforcing reliability standards**

WECC's Delegation Agreement with NERC is based on the NERC *pro forma* Delegation Agreement and has been reviewed and approved by FERC. The WECC Compliance Department is required by the *WECC CMEP* to develop an *Annual CMEP Implementation Plan*. The plan identifies the NERC Reliability Standards and WECC Regional Reliability Standards that will be monitored during the program year, as well as the compliance monitoring methods that will be used to enforce reliability in the Western Interconnection. This plan is submitted to NERC for approval.

The WECC Compliance Department goals for implementing the WECC CMEP are:

- **Improve Reliability for the Western Interconnection** – Reliability in the Western Interconnection will be maintained or improved through compliance with the Reliability Standards. Registered Entities with pro-active internal compliance programs help ensure the goal of reliability.
- **Transparency** – Implementation of the WECC CMEP will be transparent across all Registered Entities within the Western Interconnection. The WECC Compliance Department is working on several projects to ensure transparency for Registered Entities that operate in multiple regions. These projects include a Web portal that six other regions and NERC are also implementing, and the development of a common regional Web site.
- **Consistency** – All monitoring and enforcement activities within WECC will be fair and consistent. To achieve this, all WECC Compliance staff undergo rigorous CMEP training. In addition, several processes within the compliance function have been standardized. Additionally, WECC participates with all other regions in several compliance working groups to develop better practices and commonality across the United States.
- **Professionalism** – The WECC Compliance Department employs a staff that is highly experienced and knowledgeable. Its staff members are committed to presenting the highest caliber of professionalism.
- **Communications** – WECC is committed to pursuing a path of continuous improvement in communications with all stakeholders in the Western Interconnection.

WECC follows the procedures in the CMEP, the NERC Rules of Procedure, and the FERC regulations. The procedures provide for an initial review via one of eight

methods: (1) compliance audit; (2) compliance violation investigation; (3) spot check; (4) annual self-certification; (5) self-reports; (6) periodic data submittals; (7) exception reporting; or (8) complaint. The processes for each method of initial review are outlined in the CMEP. Once a possible violation is identified, the WECC Compliance Department reviews the findings to determine whether there is sufficient evidence to allege a violation and determines the appropriate remedial actions, penalties, and sanctions under the NERC Sanction Guidelines. WECC's enforcement activities are governed by NERC's annual Compliance Monitoring and Enforcement Program Implementation Plan, and by WECC's Regional Entity Implementation Plan.

Once the WECC Compliance Department issues a NAVAPS, the Registered Entity has the right to request a hearing before a WECC Hearing Panel. Hearing Panels consist of either three or five members, and are selected from the WECC Compliance Hearing Body. The majority of members of any Hearing Panel must be either WECC Non-affiliated Directors, personnel employed by WECC members who are not engaged in the electric line of business, or consultants who meet the same standards of independence required by the WECC Bylaws for non-affiliated directors. A Registered Entity also has the right to request additional appeals to NERC and FERC.

WECC Compliance management has hired as auditors, engineers and contractors who have several years of documented experience and expertise in the reliability standards subject matter areas. Each auditor must complete the NERC auditor training program. The combination of auditor training and subject matter expertise assures that all compliance monitoring activities are completed with technical accuracy, consistency, and thoroughness. Each group of reliability standards (e.g., Resource and Demand Balancing (BAL), Communications (COM), Critical Infrastructure Protection (CIP)) has a lead subject matter expert and a specified alternate. In addition, a team — typically three or four additional subject matter experts — assists in compliance monitoring processes. All compliance monitoring process activities are assigned based on the reliability standards to be reviewed. Team members are selected and assignments made based on their documented subject matter areas.

Once the audit team determines that a possible violation exists, WECC's enforcement staff reviews the documentation to determine whether the possible violation should be considered an alleged violation and a Preliminary Notice of Alleged Violation issued. This process provides multiple reviews to ensure fair and impartial enforcement of reliability standards.

All WECC employees and consultants must identify all potential relationships or conflicts with market participants or registered entities and sign a conflict of interest form, verifying their compliance with WECC's Code of Conduct.

WECC follows the CMEP requirements and provides biographies of all potential auditors prior to an audit to allow the entity being audited to review the biographies and object to any potential or perceived conflicts that could impair fairness or impartiality. WECC also internally bars any employee from any compliance work related to an entity with which they have had a relationship, for at least a one-year separation period.

At the end of every audit, WECC provides the audited entity a copy of the NERC Questionnaire. This is to allow the audited entity to directly report to NERC any

concerns with fairness, objectivity, or balance; in addition to other quality measures, with respect to how WECC carries out its auditing function.

WECC is registered as a Reliability Coordinator and an Interchange Authority. In order to maintain fair and impartial compliance monitoring for WECC-registered functions, WECC entered into the “*Agreement Between the North American Electric Reliability Corporation and Western Electricity Coordinating Council Concerning Compliance Monitoring and Enforcement for WECC Registered Functions*”<sup>12</sup> with NERC. This agreement gives the compliance monitoring of WECC-registered functions to NERC.

***D. State Regional Entity’s assessment of its own effectiveness in OC/CMEP since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

Overall, WECC has been very effective in its primary goal of increasing reliability in the Western Interconnection. WECC’s outreach programs communicated the need for industry action prior to the effective date of the FERC-approved reliability standards. This resulted in a “tidal wave” of self-reported violations and subsequent mitigation plans. Although this created documentation and reporting backlogs for WECC, it has resulted in increased understanding of the requirements of the reliability standards and attention to compliance within the industry.

**Outreach**

As discussed earlier, WECC’s outreach program has been very successful. While room for improvement exists, WECC continues to hold meetings of the CUG and CIPUG. The meetings provide a forum to convey information on compliance monitoring and enforcement, and to receive feedback on issues being faced by the industry.

**Registration**

Relative to the number of Registered Entities in the Western Interconnection, WECC has had few registration disputes. However, registration disputes continue to be a concern due to the fundamental issue of whether individual facilities have a material impact on the BES.

In December 2008, the WECC Board directed WECC staff to notify NERC that it has not, and will not, use the nine criteria associated with the definition of the Bulk Electric System. The WECC Board tasked WECC’s Reliability Policy Issues Committee (RPIC) to determine a plan to develop a regional clarification to the NERC definition. At its February 2009 meeting, RPIC determined that, although this clarification is not a standard or regional criterion, it would follow the formal standards development process to produce the regional clarification. It is anticipated that this process should be completed by year-end.

In WECC’s opinion, registration-by-requirement provides a solution to many registration disputes and can lead to more efficient implementation of compliance efforts within the industry. WECC initiated a “Registration-by-Requirement” project designed to clearly define in advance which standards and requirements are applicable to smaller LSEs and DPs within the Western Interconnection. The project was developed primarily to assist small LSEs and DPs in their compliance efforts by

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<sup>12</sup> Effective January 1, 2009. Approved by FERC Letter Order issued February 17, 2009 Docket Nos. RR06-1-018, RR07-7-006.

identifying the standards and requirements that are applicable to their operations. WECC is no longer referring to this project as a “Registration-By-Requirement” but is instead referring to it as an “Agreement On Compliance Obligations” since it will not result in an official change in registration at NERC. This project also will assist WECC in its compliance activities by identifying requirements that are subject to compliance monitoring for a specific Registered Entity. FERC adopted a similar approach in its decision regarding the New Harquahala Generating Company, LLC registration dispute.

### **Compliance Monitoring Processes**

WECC’s CMEP process implementation effectiveness has been adversely affected by the sheer volume of possible violations it has received for processing since January 1, 2007. WECC must review each self-reported violation, mitigation plan, and certification of a completed mitigation plan. The requirement to provide updates on each possible violation, alleged violation, proposed penalty, and settlement to NERC necessitates the production of a substantial amount of documentation. This huge workload, and its corresponding backlog of processing, has resulted in lengthy delays in the review of violations and mitigation plans. WECC’s first priority is keeping current on new violations as they are reported or discovered through the compliance monitoring process. In addition, WECC has focused its engineering and audit resources on the highest priority work and cleared the minor technical violations (having little to no impact on the reliability of the system) with limited review.

WECC’s accelerated compliance backlog-reduction initiative is progressing. The audits, spot-checks, and CVIs WECC has conducted have been extremely effective in uncovering possible violations of NERC reliability standards. WECC is working with the responsible registered entities to mitigate those violations.

WECC has also improved the effectiveness of its audit process since the initial audits in 2007. WECC addressed several issues related to consistency and the application of specific reliability standard language. Consequently, WECC’s audits continue to improve with more focused reviews of reliability issues. These improvements have carried over to the CVI process.

### ***E. State any proposals of Regional Entity to improve its effectiveness in OC/CMEP.***

2008 was the first full-year of compliance monitoring and enforcement at WECC. As the program is evolving, baselines are being established against which future progress can be measured. Without a baseline, no Regional Entity can gauge its true effectiveness in the implementation of its compliance program. WECC does continue to improve its efficiency in the implementation of the CMEP and has begun several initiatives to accomplish the procedural improvements necessary during the growth period. Most notable are the identification and use of lead subject matter experts for each of the NERC reliability standard groups, the assignment of process managers for each of the compliance monitoring processes, and the detailed and thorough review and process mapping of all of WECC’s internal compliance activities and work products. Each of these actions is helping to assure consistency and effectiveness in WECC’s monitoring approach and supports the outreach and education of its registered entities.

Registration disputes and investigations have absorbed an extraordinary amount of resources due to the number of disputes and investigations, and the associated complexities of each case. WECC continues to process its backlog of enforcement

activities. Some specific actions taken to reduce this backlog include a recent departmental reorganization, the recruitment of staff with regulatory experience, a focus on processing new violations in a timely manner, and the prioritization of older backlogged violations relative to their potential impact on the BES. In addition, to expedite enforcement, WECC has joined forces with other Regional Entities – through a consortium agreement – to automate certain document submittal and other resources. WECC has also contracted with an outside vendor to provide internal automation and process improvements.

WECC analyzed comments received through the public comment process on its *“Statement of Activities and Accomplishments in Carrying out its Delegated Responsibilities for the Period January 1, 2007 through December 31, 2008.”* Consistent themes related to WECC’s compliance activities were identified through the feedback.

### **1. Timeliness, consistency, and accuracy of WECC responses**

Stakeholders indicated that timeliness of identifying possible violations, processing violations, concluding investigations, and staff responses to requests for information were a concern.

Organizational changes to the compliance program in 2009 have improved both the accuracy and timeliness of WECC’s CMEP activities. Specifically, staff with extensive regulatory experience have been recruited and the department has been restructured to maximize the effectiveness of its resources and facilitate the use of cross-functional teams. WECC is working with NERC and FERC to clear the backlog of numerous cases pending as a result of self-reports that pose little or no risk to reliability. . In addition, internal performance metrics have been established, and are monitored and reported to management on a monthly basis. This process assures the appropriate level of management focus and that positive trends are perpetuated and negative trends are addressed expediently.

### **2. Lack of clear direction from WECC (and NERC)**

Stakeholder feedback indicates concern about the lack of consistency in audit processes. Additionally, many stated that some reliability standards were difficult to understand and therefore difficult for entities to ensure their compliance.

WECC is currently examining its process for writing audit reports to better describe the linkage between the standard and the violation. The use of cross-functional audit teams has been tested and, based on the success of those tests, the department has been reorganized as reflected in the discussion above. WECC will continue to incorporate any changes arising from new guidance received from FERC and NERC into its process and will communicate those changes to registered entities where appropriate. In order to provide more clarity about the interpretation of standards, WECC plans to continue its targeted training outreach. The department tracks trends in the most commonly violated standards and develops targeted training for registered entities on these standards.

### **3. Submittal and handling of compliance information**

While WECC’s compliance portal received positive feedback, stakeholders indicated that WECC needs to provide better tools for the submission and handling of compliance information.

Efforts are underway to implement a Compliance Issues Tracking System (CITS) by the third quarter of 2009. This system will track violations through the entire

life cycle of a violation and will automate processes. In addition to the CITS implementation, WECC is researching document management system software and plans to implement a system by the end of the year.

#### **4. Registration process**

Stakeholders indicated the need for more clarity around registration criteria.

WECC consistently uses the “NERC Statement of Compliance Registry Criteria” to determine the registration requirements of entities. In addition, WECC has utilized additional resources from time-to-time to assist in the registration process. Entities continue to challenge whether they are subject to registration due to their size, their interpretation of the Registry Criteria, or whether they have a material impact on the BES. WECC has a number of disputes that need to be resolved. WECC plans to identify ways to improve its communication with entities and to strengthen its outreach and education on this issue.

WECC has dedicated a substantial amount of time and resources to assisting entities in their compliance efforts by attempting to narrow and clarify the scope of their registration up-front. For example, as discussed in Section D, WECC developed its “Agreement On Compliance Obligations” project to assist small LSEs and DPs in their compliance efforts by identifying the standards and requirements that are applicable to their operations. In addition a number of Generator Owners/Generator Operators that have been registered as Transmission Owners (TO)/Transmission Operators (TOP) are requesting negotiations in an attempt to appropriately limit the scope of requirements applicable to them under their TO/TOP functions based on the nature of the transmission facilities they operate. WECC notes that it is difficult to address disputes based on the lack of material impact since the definition of “Material Impact” is highly subjective and the industry has not yet developed a consensus definition. WECC anxiously awaits guidance from NERC or FERC and supports efforts to resolve some of these issues.

#### **5. Training and Education**

While stakeholders indicated an appreciation of WECC’s external training program, they expressed a desire for more training and education. In addition, stakeholders expressed the belief that WECC Compliance staff requires internal training.

As the CMEP continues to ramp up, both WECC and the Registered Entities continue to add staff who may require introductory and more advanced training. WECC will continue to improve and expand its internal training program and institute a more formal process for training; both externally and internally. WECC will continue its outreach efforts, including workshops and targeted training programs, with consideration for many smaller stakeholders with limited travel budgets. In addition, WECC plans to build on the success of the Webinar training that was undertaken prior to the launch of the compliance portal and will consider how to expand the use of that medium to those entities that are unable to attend training in-person.

WECC received some compliance-related comments associated with the discussion of its backlog clearance activities and organization registration contained in its *“Statement of Activities and Accomplishments in Carrying out its Delegated Responsibilities for the Period January 1, 2007 through February 28, 2009.”* This version was posted for public comment until May 29, 2009.

The Edison Electric Institute expressed a desire for clarification about the actions taken by both NERC and WECC to reduce the volume of outstanding cases in the WECC region. Both NERC and WECC are constrained by existing CMEP rules that prevent the disclosure of information regarding violations until FERC has made its final ruling on any enforcement actions. The problem is compounded by the limited number of cases that have reached this final stage when information can be disclosed. Consequently, other than describing the efforts being undertaken in general terms there is little public information that can be shared with Registered Entities and the public in this self-assessment and other documents. As roles and expectations are more clearly defined by NERC, and with increased experience in the investigation of violations, the time needed to complete enforcement activities is beginning to decrease. As a result, WECC is experiencing increasing success at moving cases through due process and filing the results with NERC.

WECC is working, both internally and with NERC, to reduce the backlog of cases and is making progress. Some of the specific actions that have been and are being taken include:

- Reorganize the Compliance Department to maximize the effectiveness of the department's resources and facilitate the use of cross-functional teams.
- Recruit more staff with regulatory experience.
- Process new violations promptly and keep current.
- Prioritize older, backlogged violations: those representing possible higher risk to reliability are being processed first.

As newer violations are processed with respect to any Registered Entity through settlement agreements, older violations attributed to that Entity that are in the backlog are added and dealt with in one settlement.

The American Public Power Association (APPA) comments (C.6) on the need to *"Reduce the [Regional Entity] time lag in processing mitigation plans associated with self-reported violations. Particularly within WECC...."*

WECC agrees that entities need prompt feedback on mitigation plans. In an effort to resolve its backlog issues, and after consultation and guidance from NERC staff, WECC focused initially on processing alleged violations identified at audit and those that represent greater risk to reliability. Consequently, fewer resources were available to processing some mitigation plans. WECC is in the process of hiring more auditors and support staff and internally clarifying responsibility for mitigation plans.

WECC believes that when staff is fully in place and trained, mitigation plans will be processed in a timely manner. WECC continues to gain more understanding of NERC's expectations and requirements as NERC reviews submitted mitigation plans and requests modifications. A concerted effort is underway to work with entities to resolve these issues. Recently, FERC approved revisions to NERC's pro forma Compliance Monitoring and Enforcement Program that should speed entity notification of NERC action on mitigation plans.<sup>13</sup> These revisions, as interpreted by FERC, require NERC to notify both the registered entity and the regional entity directly, and contemporaneously, within 30 days as to whether NERC approves the mitigation plan.<sup>14</sup>

In its public comment, the Bonneville Power Administration (BPA) supports the development of a process by which Registered Entities can, "submit hypothetical or

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<sup>13</sup> *Order on Compliance Filing*, Docket No. RR06-1-021, 127 FERC ¶61,209, June 1, 2009.

<sup>14</sup> *Id.* at 17.

proposed means of complying and demonstrating compliance with particular standards for review and guidance by NERC and WECC."

WECC agrees that there is a need for entities to have more certainty on compliance with standards. As discussed earlier, as more entities receive final rulings from FERC, more information about "lessons learned" will be made available that will serve as a guide to both the Registered Entities and the Regional Entities. As noted by some commenters, other agencies offer similar processes that should be considered. While this would be resource-intensive for NERC and the Regional Entities, WECC supports and encourages any effort to provide more guidance and certainty; whether through the process BPA proposes or an alternative solution.

### **Organization Registration and Certification**

The APPA comments (B.1) on the need to "*Raise threshold criteria for requiring entities to be registered.*"

WECC concurs that "NERC and industry stakeholders need to develop workable procedures and engineering criteria for the study and evaluation of material impact...." A large number of public power and other Registered Entities ranging from very small to medium-sized exist within the WECC region. In many cases, these entities, viewed individually, may have little or no material impact on BES reliability. However, in the aggregate, these same entities appear to have a significant impact. WECC interprets the current NERC Statement of Compliance Registry Criteria to require registration of these entities because of their possible aggregate impact. WECC believes it would be useful for NERC to re-examine this issue and clarify what, if any, registration is required based on aggregate impact, or whether some alternative could preserve reliability while not requiring registration of an entity which, taken by itself, has little or no impact on the reliability of the BES.

The APPA comments (B.2) on the need to "*Allow registration by requirement.*"

As the APPA notes in its comments, WECC has been working with certain small-to-medium-sized LSEs and DPs in the WECC region to identify the requirements with which those entities must demonstrate compliance.<sup>15</sup> WECC agrees with the APPA's comments that altering the current approach to registering small-to-medium-sized entities might offer benefits. Currently, when these entities are audited, WECC auditors examine all the standards and all of the requirements associated with each function for which an entity is registered. This practice usually results in a number of requirements being determined as "not applicable" and thus are not audited further. With respect to smaller entities registered for the LSE and DP functions, a significant amount of WECC and the entity's time and resources are devoted to this examination.

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<sup>15</sup> Subsequent to FERC's *Harquahala* order in Docket No. RC08-4, 123 FERC ¶61,173, WECC began exploring registration by requirement for certain small-to-medium public power LSEs and DPs in order to resolve a number of registration disputes. Informal guidance from NERC staff communicated to WECC emphasizes that NERC is not bound by any such agreements. Entities are being advised of this, and also that WECC may not be bound if, for example, WECC identifies changes in circumstance or practices or, during an audit, identifies additional requirements for which the entity should be held responsible and accountable.



The registration-by-requirement<sup>16</sup> analysis is conducted by WECC at the request of the entity. This analysis reviews the entity's operations and equipment to determine which requirements do not apply. WECC requires that these entities promptly report any changes that may alter the applicable requirements. Registration-by-requirement benefits the entity by identifying applicable requirements in advance of audit and compliance monitoring activities. This process also helps auditors and the WECC Compliance Department to focus on the requirements that will be monitored and examined.

**Conclusion:**

In conclusion WECC appreciated the comments and will, as noted above, act on them. Respondents also commented particularly favorably on the Compliance outreach program, on WECC's CIP expertise, and on WECC's compliance portal.

### III. Other Program Areas

#### A. Reliability Readiness Evaluation and Improvement Program

"Readiness Evaluation" is a NERC program designed to assess an entity's ability to operate reliably in the future as well as to determine its readiness to maintain safe and reliable operations. Readiness Evaluations are undertaken by teams of industry experts and generate examples of excellence that are circulated throughout the industry to improve operations. Balancing Authorities, Transmission Operators, and Reliability Coordinators are scheduled for Readiness Evaluations every three years.

Readiness Evaluations are conducted at entities' facilities, and involve reviews of documentation and interviews with employees. On completion of an evaluation, the team meets with the entity's staff and management personnel, provides details of good operating practices, and makes recommendations for improvement. Recommendations from Readiness Evaluations in WECC are tracked for resolution by the Operating Practices Subcommittee, which is a subgroup of the Operating Committee.

Readiness Evaluation teams consist of six or more members including: a WECC staff member, a NERC co-lead, and four industry volunteers drawn from both inside and outside of the Western Interconnection. FERC staff also may participate. WECC's Readiness Evaluation staff ensures that the evaluation team understands operating practices and WECC members are well-prepared for the evaluations. The readiness evaluation program in WECC is under the direction of the assistant director of operations.

**1. Describe Regional Entity's activities and accomplishments in Reliability Readiness Evaluation and Improvement since January 1, 2007, including discussion of improvements in this area.**

WECC and NERC co-conducted 33 Readiness Evaluations from January 1, 2007– May 31, 2009. During this 29-month period, 24 Balancing Authorities, three Reliability Coordination Offices, and six Transmission Operators participated in the program. As of the date of this report, all but three of the

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<sup>16</sup>Although WECC uses the term "Registration-by-Requirement" in these comments, it is noted that this term is not recognized by NERC. Based on informal guidance from NERC, WECC no longer uses this terminology. Instead, WECC uses the term "Agreement on Compliance Obligations" to refer to such agreements.

evaluations have final reports posted. From these reports, 266 positive observations, 261 recommendations, and 13 potential examples of excellence were identified. Of the 261 recommendations, 137 have been resolved. Some recommendations appeared more frequently than others; those related to Operator Training, Advanced Applications, Document Management, and Load Shed Procedures.

In July 2008, the NERC Board of Trustees approved a plan to eliminate the Readiness Evaluation Program by the end of the first quarter of 2009.<sup>17</sup> As a result of this decision, two Readiness Evaluations that were scheduled for completion in 2008 were canceled. These entities had previously participated in Readiness Evaluations and had no outstanding recommendations. Three Transmission Operators were scheduled to receive Readiness Evaluations before the end of the first quarter of 2009. These entities have not previously had a Readiness Evaluation. These evaluations serve as a Provisional TOP Certification Process. One of these evaluations occurred October 28–31, 2008. The remaining two were completed in February 2009.

**2. *State Regional Entity's assessment of its own effectiveness in Reliability Readiness Evaluation and Improvement since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

As Readiness Evaluation Recommendations are not mandatory, some entities have chosen not to implement the recommendations for various reasons (such as, budget constraints and management discretion). The majority of WECC entities that received Readiness Evaluation Recommendations since January 1, 2007 have indicated that the implementation of the recommendations has led to an overall improvement of their operations. In some instances, entities have slightly modified recommendations to better meet their operating processes and practices, and to make them more appropriate to the size and scale of their organizations. Overall, when recommendations are implemented (such as the formalization of shift change procedures, document control, or operating procedures), WECC members have indicated the result was an improvement in their operations.

## **B. Training, Education and Operator Certification**

WECC provides continuing education and training for system operators, schedulers, and dispatchers. The costs associated with the WECC Training Program are completely offset by the revenue generated from registration fees for the training classes. WECC conducts training classes 24-26 weeks per year in Salt Lake City, Utah. Since 2008 and continuing in 2009, training classes have been held in Salt Lake City, Utah; Spokane, Washington; Wilsonville, Oregon; Phoenix, Arizona, and San Ramon, California. The curriculum is developed with the assistance of the Operations Training Subcommittee of the Operating Committee. The Operations Training Subcommittee and WECC staff provide an annual System Operator Training Program for all WECC-certified training instructors. In addition, twice a year

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<sup>17</sup> FERC has questioned NERC's proposed elimination of the Readiness Evaluations. NERC, 125 FERC ¶ 61,056 (October 16, 2008) ("Accordingly, the ERO may not unilaterally eliminate a Commission-approved program such as the Reliability Readiness Evaluation and Improvement Program or eliminate (or intentionally lay dormant) section 700 of the NERC Rules of Procedure. Rather, to be in compliance with the Commission's regulations and relevant orders, the ERO must petition the Commission and gain Commission approval before eliminating the program or amending the Rules of Procedure.")

WECC staff and the Operations Training Subcommittee offer an *Overview of Systems Operations Workshop* that provides a broad overview of system operations for non-operational personnel.

**1. Describe Regional Entity's activities and accomplishments in Training, Education and Operator Certification since January 1, 2007, including discussion of improvements in this area.**

Between January 1, 2007 and May 31, 2009, WECC provided training to 1,891 of its members' employees through the System Operator Training Program. WECC also provided training to 470 non-operational personnel of WECC member systems and various state regulatory agencies through the Overview Workshops during this period.

WECC provides continuing education for system operators, schedulers, and dispatchers. As part of its ongoing improvement process, WECC reviews and revises the curriculum based on feedback from students and on changes in the entities' operating environment. As a consequence of this feedback, WECC has increased the emphasis on training related to NERC Reliability Standards, Regional Reliability Standards and Criteria, and business practices.

In 2009, all of the System Operator Training Modules were modified to increase the emphasis on NERC and Regional Reliability Standards as well as incorporation of additional simulation training. The following are the revised courses showing the discussion topics and a breakdown of the continuing education hours earned for each module. These revised courses are being used in the 2009 Training Program.

**Generation Resources Control and Balance**

This week-long class focuses on the control and balance of generation resources. On completion, each student receives 30 NERC continuing education (CE) hours, with six NERC CE hours of NERC Standards and eight NERC CE hours of simulation included in the 30 total CE hours. Each student also receives five Emergency Operation CE hours.

**Emergency Operations and System Restoration**

This week-long class focuses on all aspects of emergency operations and system restoration. On completion, each student receives 32 NERC CE hours, with 10 NERC CE hours of NERC Standards and 13 NERC CE hours of simulation included in the 32 total CE hours. Each student also receives 32 Emergency Operation CE hours.

**Fundamentals of System Operations**

This three-and-a-half-day class focuses on the basics of AC/DC Theory and power system operations. This course uses the WECC System Operations Training Manual as its text and is designed for entry-level personnel new to system operations. On completion, each student receives 30 NERC CE hours, with four NERC CE hours of NERC Standards included in the 30 total CE hours. No simulation hours are available for this course; however, there are plans to include some simulation training.

**Transmission Operations**

This week-long class focuses on the operation, relay protection, voltage control, and inter-Balancing Authority impact on the BES. On completion, each student receives 30 NERC CE hours, with five NERC CE hours of NERC Standards and

12 NERC CE hours of simulation included in the 30 total CE hours. Each student also receives six Emergency Operation hours.

### **Interchange in Interconnected System Operations**

This week-long class focuses on Interchange in Interconnected System Operations. On completion, each student receives 30 NERC CE hours, with eight NERC CE hours of NERC Standards included within the 30 total CE hours. At this time no simulation hours are available or planned.

### **Schedulers Training Course**

This three-and-a-half-day class focuses on familiarizing schedulers and marketers who may be new to power system operations with the basic principles of system operations. On completion, each student receives 24 NERC CE hours, with six NERC CE hours of NERC Standards included in the 24 total CE hours. No simulation hours are available for this class.

### **Power System Dynamics Dynamics of Disturbances**

These courses are intended for very experienced operating personnel and are highly advanced. Attendance of Power System Dynamics is a prerequisite to attending Dynamics of Disturbance.

Power System Dynamics and Dynamics of Disturbances are presented by Operations-Training-Solutions (O-T-S), an external consultant, and sponsored by WECC. O-T-S is an approved NERC CE provider and is responsible for course accreditation and NERC CE hour awards.

With the changes to the WECC Training Program, WECC expects to see major improvements in the understanding and implementation of the applicable NERC Reliability Standards and WECC Regional Reliability Standards by system operators and schedulers. The courses emphasize theories of operating the BES through practical application of information provided using the generic PALCO System simulator. By using the simulator, students will gain a greater understanding of interconnected system operations and the relationship of equipment used in the BES.

- 2. State Regional Entity's assessment of its own effectiveness in Training, Education and Operator Certification since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

The measurement of WECC's training effectiveness is accomplished by analyzing anonymous evaluations completed by each individual attending a training course. These evaluations are reviewed by the WECC training staff and by the WECC Operations Training Subcommittee to verify course effectiveness, quality of presentations, and course material. The course evaluation summaries are also subject to audit by the NERC Continuing Education Program as WECC is a NERC-Approved Continuing Education provider.

Analysis of the evaluations has shown that the majority of course participants rate the WECC training program as "very good" to "excellent." Suggestions for additional course material provided via the evaluations combined with changes in the entities' operating environment (such as new or revised reliability standards) are taken into consideration when decisions are made about the need to revise

and/or update course material. The pre-registration for WECC's 2009 training program indicates a 28 percent increase over 2008. WECC attributes this increase to changes in its curriculum made in response to feedback from student evaluations and in response to changes in the industry's operating environment.

**3. State any proposals of Regional Entity to improve its effectiveness in Training, Education and Operator Certification**

The 2009 WECC System Operator Training Program reflects enhancements and changes to the course materials that better presents the current operating environment, and responds to comments received through the evaluation process described earlier. The 2009 schedule has 24 weeks of training planned and over 1,000 system operators pre-registered for classes in 2009. The training schedule consists of eight weeks of *Power System Dynamics and Dynamics of Disturbances*, 17 weeks of *System Operator Training*, and one week of *Schedulers' Training Course*. WECC will also provide three *System Overview Workshops* in 2009 for industry executive management personnel as well as a one-week *Train-the-Trainer Workshop* for WECC System Operator Training Instructors.

The Training Department was comprised of one full-time trainer and a contract training instructor. To further improve the quality and consistency of its training program, WECC replaced the contract training position with a full-time training instructor in February 2008. In addition, WECC is currently recruiting a manager of training. This new position will support both operator training and WECC member training. The manager of training will be responsible for coordinating the development, implementation, and documentation of all WECC system operator training and coordinating the reliability coordinator training to meet NERC Standards, criteria, and documentation. The manager of training will also be responsible for compliance and standards training as requested by members.

The changes in the WECC training program and use of the generic simulator will provide students with exposure to a variety of situations and educational experiences, such as:

- System disturbances
- Operating limit violations
- Voltage control problems
- Acceptable voltage control parameters
- Understanding how generators operate
- Loss of generating units
- Governor control on generating units
- Use of manual load shedding
- Proper use of Automatic Generation Control modes
- Understanding of frequency control

**C. Reliability Assessment and Performance Analysis Program**

**1. Describe Regional Entity's activities and accomplishments in Reliability Assessment and Performance Analysis since January 1, 2007, including discussion of improvements in this area.**

**Background**

WECC conducts a variety of studies and assessments required for the reliable planning and operation of the BES in the Western Interconnection.

To support the region's responsibilities under FERC Order 890, WECC performs long-term planning studies that look five and ten years out. These studies serve to identify transmission congestion by calculating interconnection-wide production costs and other congestion metrics on an hourly basis and under a range of resource, load, and transmission expansion scenarios.

WECC provides energy and capacity information to NERC for seasonal and long-term reliability assessments each year. This information allows NERC to complete the assessments required under Section 215 of the Federal Power Act. This work is overseen by the managing director of planning and standards.

## **Program Description and Functions**

### **Transmission Expansion Planning**

WECC assists in meeting the Region's needs for regional transmission planning and analyses and accomplishes this by providing impartial and reliable data, public process leadership, and analytic tools and services.

The Transmission Expansion Planning Policy Committee (TEPPC) — a WECC Board Committee — facilitates these activities, operates under a charter approved by the WECC Board, and has 17 members who represent all classes of stakeholders and all geographic sub-regions of WECC. This committee was established in 2007. The TEPPC Charter directs three primary functions:

1. Overseeing transmission database management.
2. Providing policy and management of the planning process.
3. Guiding the analysis and modeling for Western Interconnection transmission expansion planning.

TEPPC and its subgroups work closely and coordinate with Western state, provincial, and federal government entities.

The 2007 TEPPC Synchronized Study Plan was completed in early 2008 and represents TEPPC's initial development and preliminary examination of two resource portfolio cases. The initial development effort provided the foundation for the 2008 Synchronized Study Plan, which improved on and completed the two 2007 cases.

During 2008, WECC staff — with the assistance of the Technical Advisory Subcommittee (TAS) of TEPPC — updated the Transmission Expansion Planning Database. The updated database includes information regarding fuel prices, loads, and resources (existing and planned generation and Demand-Side Management). WECC staff uses this data to simulate Western regional production costs under various load, gas price, hydro, and other scenarios. These activities are intended to result in a comprehensive, current, and well-validated set of future load and resource scenarios that can be used to identify where transmission expansion may be needed to relieve identified congestion. In addition, the database can be used to evaluate the ability of transmission, generation, and demand-side resources to satisfy needs of the Western Interconnection.

The 2008 TEPPC Synchronized Study Plan analyzed additional resource portfolio cases and conceptual transmission expansion scenarios to relieve identified transmission congestion. Importantly, in response to a proposal by the Western Interconnection Reliability Advisory Body (WIRAB), the 2008 Plan included three new resource portfolio cases (15 percent renewable energy, 20 percent energy efficiency improvement, and 20 percent carbon reduction). The 2008 TEPPC Annual Report was approved by TEPPC and the WECC Board in March and April of 2009, respectively.

TEPPC also performed a historic study of congestion in the Western Interconnection. This congestion study will allow the U.S. Department of Energy (DOE) to meet its requirements under Section 1221 of the Energy Policy Act of 2005. The 2008 effort included the acquisition and analysis of e-Tag scheduling data and associated available transfer capacity (ATC) on major paths to identify historic schedule and physical congestion in the Western Interconnection. This will address the expressed needs of WECC stakeholders and the DOE. The work is being performed by WECC and Open Access Technology International, Inc. (OATI) with funding support provided by the Lawrence Berkley National Laboratory (LBNL). Conclusions from this work will be included with the TEPPC report described above.

The 2009 TEPPC Synchronized Study Plan commenced on November 1, 2008 with the opening of the request window for proposed studies to be included in the 2009 Study Plan. The closing date for requests to be received by WECC was January 31, 2009. From these requests, the 2009 Study Plan will be created and adopted by TEPPC in June 2009.

### **Loads and Resources**

WECC prepares and submits an annual Long-Term Reliability Assessment (LTRA) of the Western Interconnection for inclusion into NERC's LTRA filing. In addition, WECC performs summer and winter resource adequacy assessments. WECC participates in ongoing NERC discussions of data requirements and analyses that serve to address the emerging issues within the NERC LTRA process.

WECC's 2009 LTRA Work Plan addresses issues and scenarios identified by NERC, while tailoring the plan to satisfy WECC's other needs. WECC staff, assisted by the Loads and Resources Subcommittee (LRS), creates a forecast of resource adequacy in the Western Interconnection. These forecasts are performed for various sub-regions within WECC in order to characterize the expected reserve margins over the ten-year forecast period. Recent advancements have been made to the energy and capacity assessments, including an expansion of scenario inputs (such as extreme weather), and improved model and data quality. In addition, considerable effort is underway to better evaluate and characterize the sustained peak resource capability of the Northwest's hydroelectric system. This work is performed under the direction of the Planning Coordination Committee (PCC) and LRS.

To facilitate analysis of the Western Interconnection, WECC compiles load and resource information annually from the balancing and planning authorities in the West. The Loads and Resources (L&R) survey serves to quantify existing and to identify planned loads and resources of the region. The L&R data request for the 2009 studies was issued in December 2008. The survey is much improved over past years, largely due to the inclusion of more detailed and specific data.

### **Power Supply Assessment (PSA)**

The WECC PSA is an annual evaluation of generation resource reserve margins for the summer and winter peak hours. The assessment identifies sub-regions within WECC that have a potential for electricity supply shortages. The assessment is based on reported demand, including a planning reserve margin, resource data, and transmission constraints.

The PSA presents the results of a series of resource capacity margin scenarios for the Western Interconnection. These results cover a ten-year forecast period and are based on a deterministic load-resource model, and on the physical ability of the generation and transmission resources in the Western Interconnection to serve all loads — regardless of contractual obligations — of supply, transmission, or demand. The assessment also reports the results of several extreme temperature case studies.

### **Base Case Studies**

The WECC technical staff, with assistance from the System Review Work Group, annually prepares a ten-year data bank of 11 power flow base cases (five operating cases and six planning cases) and associated stability data reflecting case scenarios, system configurations, and operating conditions specified by the Technical Studies Subcommittee (TSS). These 11 base cases are developed, based on a study plan adopted by the TSS and the PCC. They are used by member utilities' planning departments to determine seasonal operating and transfer capabilities, provide a starting point for planning studies for future projects, and determine stability limits as required by NERC Standards and WECC Regional Reliability Standards.

The WECC technical staff, based on guidance from the TSS, also develops an annual report that provides an ongoing transmission reliability assessment of the Western Interconnection in both its existing state and for configurations planned through ten years into the future. A variety of disturbance simulations are performed on these cases and the results are summarized in the annual report. Identified performance deficiencies, as defined in the NERC Standards and WECC Regional Reliability Standards, are logged and forwarded to the appropriate party for mitigation.

**2. *State Regional Entity's assessment of its own effectiveness in Reliability Assessment and Performance Analysis since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

Improvements in WECC's effectiveness are being implemented on an ongoing basis. The databases, modeling capabilities, and tools; and the specialized expertise to perform the analysis of future resource portfolios under a range of emerging policy scenarios; are improving and building on work performed in 2007 and 2008 for the LTRA, PSA, and TEPPC studies. WECC's capabilities and performance have increased significantly since January 2007. WECC's efforts in this respect are continuing as summarized below:

- During 2008 a whitepaper on planning data was prepared by WECC staff for TEPPC. The white paper describes the loads and resources data used in the LTRA, PSA, TEPPC, and PCC base- case studies. The paper distinguishes among the study purposes, uses of data, and reasons for differences among



data sets; reconciles data comparisons to address credibility concerns; and proposes improvements in data collection efficiency.

- The TEPPC Synchronized Study Plan for 2008 for the five- and ten-year planning horizons addresses a number of robust resource portfolio cases and associated conceptual transmission expansion scenarios to relieve identified congestion. The cases were selected under the TEPPC protocol from requests received during the open season. The key portfolio cases are the WIRAB series: 15 percent renewables West-wide (as compared to existing Regional Portfolio Standards requirements of about 8.6 percent), 20 percent energy efficiency improvement, and a 20 percent carbon reduction case. TEPPC is coordinating sub-regional transmission planning efforts under FERC Order 890. Importantly, the TEPPC portfolio cases address two key areas of concern identified by the Western Electric Industry Leaders (WEIL) Group: high renewable resource penetration and carbon constraints.
- WECC's analysis of actual historic congestion on major paths in the Western Interconnection is a second dimension of the effort to better assess the current and future reliability of the Western Interconnection. To facilitate this work, WECC entered into a contract with OATI to acquire e-Tag schedule data and associated ATC on major paths to more fully characterize the level of existing congestion, which has been a need identified within the West and by the DOE. WECC also entered into a subcontract with LBNL to obtain significant funding support for the acquisition and analysis of this commercial data.
- WECC established the position of managing director of planning and standards in March 2008. In May 2008, WECC hired a renewable integration director to spearhead its efforts to address the significant challenges associated with high penetration levels of variable renewable resources. As a result, the TEPPC cases incorporate the latest National Renewable Energy Laboratory three-year meso-scale data on both wind and solar throughout the Western U.S. WECC is working closely with TEPPC, TAS, and multiple working groups to perform the studies. The excellent working relationships with the WIRAB have advanced the analysis significantly.
- TEPPC and the PCC are actively clarifying their respective and complementary roles and responsibilities.

The efforts described above enhance WECC's overall ability to participate in and respond to the major public policy issues emerging in the Western Interconnection and nationally.

**3. *State any proposals of Regional Reliability Entity to improve its effectiveness in Reliability Assessment and Performance Analysis.***

Improvements in WECC's effectiveness are being implemented on an ongoing basis as described in response to Items 1 and 2. Importantly, the databases, modeling capabilities, and tools; and the specialized expertise to perform the analysis of future resource portfolios under a range of emerging policy scenarios; are improving and building upon work performed in 2007 and 2008. WECC expects that the range of study requests for TEPPC's 2009 Synchronized Study Plan will be robust and will reflect needs identified by a broad set of stakeholders in the Western Interconnection. WIRAB, WEIL, the sub-regional planning groups, and others have expressed keen interest in building on the 2008 TEPPC

Synchronized Study Plan to test other emerging portfolio and policy uncertainties.

TEPPC is currently preparing to submit a response to DOE's Funding Opportunity Announcement (FOA) to perform expanded transmission planning functions and develop a regional transmission plan(s) pursuant to the American Recovery and Reinvestment Act (Stimulus Bill). TEPPC is preparing a stakeholder-driven whitepaper to provide a framework for the response to DOE's FOA.

TEPPC sponsored a Long-Term Transmission Planning Seminar in February 2009 to examine a comprehensive range of issues related to enhancing the regional transmission planning functions, characteristics of alternative Extra High Voltage technologies and overlays, siting and permitting challenges and other related issues.

WECC co-sponsored a Resource Planning Forum in February 2009, as part of WECC's ongoing effort to better assure that individual entity Integrated Resource Plans, the Western Governors' Association's Western Renewable Energy Zones Project, and other studies are evaluated and incorporated into planning throughout the Western Interconnection. This work will serve to better facilitate renewable resource development and transmission expansion while mitigating climate/carbon risk. Other issues related to potential risk of reductions or loss of existing resource capabilities (for example, additional hydro restrictions and once-through cooling requirements) are likely to be examined in TEPPC studies.

On December 8, 2008, the LRS issued an enhanced and consolidated data request (L&R survey) to cover the data needs of the LTRA, PSA, TEPPC, and TSS study efforts in the West. Responses were due March 2, 2009. This should improve the efficiency and use of the loads and resources data across all study efforts, and should mitigate or eliminate the duplicative data acquisition processes. The LRS is also testing a next-generation resource adequacy analysis method that uses a production cost model similar to TEPPC. This will replace the existing deterministic seasonal model used by the PSA and should provide a more transparent link between the PSA, LTRA, and TEPPC.

WECC's Joint Guidance Committee (the PCC, Operating Committee, and Market Interface Committee) has established a Variable Generation Subcommittee (VGS). The purpose of the VGS is to identify issues and opportunities related to the presence of variable generation sources in the Western Interconnection, and to facilitate the development and implementation of solutions that add distinct value to WECC. The VGS will focus on the regional reliability and market challenges of renewable energy integration by compiling information and member issues, coordinating analyses, and disseminating information back to the membership.

Additional budget and specialized expertise will be needed to meet the accelerating needs related to Reliability Assessment within the Western Interconnection. Three of the five strategic objectives detailed in WECC's Three-to-Five-Year Strategic Plan relate to expanded technical analysis, planning, and policy facilitation roles for WECC. These objectives are a major focus for the WECC Reliability Assessment function as is TEPPC's upcoming response to the DOE FOA described above, which will seek funding support for expanded regional transmission planning efforts.

## **D. Situational Awareness and Infrastructure Security Program**

### **1. Describe Regional Entity's activities and accomplishments in Situational Awareness and Infrastructure Security since January 1, 2007, including discussion of improvements in this area.**

Since 1997, WECC operated three Reliability Coordination Offices (RCOs) that collectively provided a real-time, wide-area view of the BES. Through contractual agreements and the existence of mandatory standards, Reliability Coordinators based in the RCOs had the ability to give WECC Reliability Entities directives that protect and maintain system security.

The three RCOs were hosted by major transmission operators who charged WECC for overhead and other costs associated with operating the RCOs. Reliability Coordinators at the RCOs were a mix of employees of the host organization or of WECC, or were independent contractors.

In 2006, the WECC Board approved the Reliability Coordination Strategic Initiative (RCSI), which was designed to make reliability coordination in the Western Interconnection more effective and efficient. The initiative included consolidation of the RCOs from three to two, increasing real-time Reliability Coordinator staffing, developing a comprehensive model (the West-wide System Model (WSM)) of the Western Interconnection, and increasing the independence of the Reliability Coordinators. The WSM provides a common view of the entire Western Interconnection to WECC's Reliability Coordinators and the two new RCOs, which went live on January 1, 2009 and serve as "hot" backup for each other. Going forward, the WSM is the platform on which advanced applications and common tools will be built. Through the use of these tools, real-time stability and other studies can be performed. The WSM was completed prior to November 1, 2008 and underwent validation by the WECC Reliability Coordinators during parallel operations, prior to the opening of the new WECC RCOs.

In February 2007, WECC hired a director of reliability coordination to oversee the existing RCOs. As a reflection of the importance and responsibility associated with this role, this position was subsequently promoted to managing director of reliability coordination in January 2008. This position focuses on budget management, employee oversight, and operational consistency. This director has improved the consistency of operations between the current RCOs and provided a single point of accountability for the RCO teams. In September 2007, WECC hired an energy management system manager to provide budget and technical oversight for the WSM project, and to inform and communicate data requirements to the WECC membership. Starting in January 2008, WECC began converting the Pacific Northwest Security Coordinator and Rocky Mountain Desert Southwest Reliability Coordinator staffs to WECC employees. This initiative was completed in November of 2008.

The WECC Board approved the following initiatives during its December 2007 meeting:

- 1. Both of the new Reliability Centers<sup>18</sup> are scheduled to be operational by January 1, 2009.*

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<sup>18</sup> Reliability Centers are now known as Reliability Coordination Offices (RCOs).

2. *The centers will be located in Vancouver, Washington and Loveland, Colorado.*
3. *The centers will be hosted and operated by WECC.*
4. *The WSM will also be hosted at each of the centers.*
5. *The amended budget for Situational Awareness and Reliability Coordination will be used to fund the accelerated implementation of the new Reliability Centers.*

Along with their real-time reliability functions and responsibilities, the WECC Reliability Coordination staff spent 2008 working on completing the WECC Board initiatives approved in December 2007, as well as maintaining WECC's reliability function in the three RCOs. Special attention was paid to the retention of WECC's existing Reliability Coordinators and to the maintenance of its current processes and relationships with Reliability Entities within the Western Interconnection. The goal was to minimize the changes experienced by the Reliability Entities during the transition to the two new WECC RCOs. WECC currently employs:<sup>19</sup>

- 1..... Managing Director of Reliability Coordination (formerly the Director of Reliability Coordination)
- 1..... Director of Energy Management System and IT Services<sup>20</sup> (formally Energy Management System Manager)
- 2..... Reliability Coordination Managers
- 23..... Reliability Coordinators
- 2..... Lead Reliability Coordinators
- 1..... Energy Management System Technical Manager
- 1..... Lead Applications Architect
- 1..... Lead IT Architect
- 1..... Reliability Coordinator Trainer
- 12..... Energy Management System model, study, and application engineers
- 1..... Critical Infrastructure Protection Engineer
- 2..... Administrative Assistants
- 1..... Reliability Coordination Compliance Manager

Operation of the new RCOs is producing reliability improvements resulting from the consolidation and common hosting of the WSM. Reliability is also being enhanced by simultaneous initial operation of both centers and the WSM.

**2. *State Regional Entity's assessment of its own effectiveness in Situational Awareness and Infrastructure Security since January 1, 2007. If effectiveness has changed over this period (either improved or worsened), this should be discussed.***

Effectiveness in Situational Awareness and Infrastructure Security has improved since January 1, 2007 as a consequence of the hiring of the WECC director of reliability coordination (a year later, this position was promoted to managing

<sup>19</sup> As of May 31, 2009.

<sup>20</sup> Two IT Network Administrators report to the Director of Energy Management System and IT Services.

director of reliability coordination). In 2008, WECC hired two<sup>21</sup> dedicated reliability coordination trainers who have developed a comprehensive Reliability Coordinator training program that covers all Reliability Coordination functions in the Western Interconnection. These factors, combined with the WECC RCSI (which was sponsored by WECC executive staff and approved by the WECC Board), have improved WECC's effectiveness in Situational Awareness and Infrastructure Security. FERC's order<sup>22</sup> allowing Section 215 statutory funding for the WECC Reliability Coordinator function further solidified WECC's goal of increasing and improving situational awareness in the Western Interconnection.

As part of the RCSI, in late 2006 WECC selected Areva as the Energy Management System vendor for the WSM. Having one integrated model for the Western Interconnection, with a solid application platform for the development of common tools, will enhance real-time situational awareness and provide better study tools for WECC's operation engineers. One of the objectives for 2009 is the development of pertinent PI system displays that the WECC membership can access through a secure Web site.

WECC's participation in NERC's Reliability Coordination Work Group, Operations Reliability Subcommittee, and Operating Committee; and the work of WECC's Operating Committee, Energy Management System Work Group, Reliability Coordination Subcommittee, and Data Exchange Work Group; have increased WECC's visibility to its members and to other Reliability Entities.

**3. State any proposals of Regional Entity to improve its effectiveness in Situational Awareness and Infrastructure Security.**

WECC completed the WECC RCSI and transferred operations to the two new RCOs on January 1, 2009. The initiative includes ownership and maintenance of all Reliability Coordination critical and cyber assets.

WECC Reliability Coordination plans to share the WSM with Balancing Authorities and Transmission Operators within WECC that comply with FERC Order 889, have signed WECC's License Agreement, and have agreed to maintain confidentiality of the WSM. This enhances situational awareness from a grass roots level within WECC because each reliability entity will have access to the most robust representation of the Western Interconnection available.

In 2009, WECC hired a manager of reliability coordination compliance who manages the compliance workload for the RCOs. This position is the point of contact for all external and internal compliance-related matters regarding WECC Reliability Coordination. The manager of reliability coordination compliance has direct responsibility for ensuring that the WECC RCOs meet all the mandatory compliance requirements.

Moving ahead through 2009 and beyond, WECC will continue to assess the changing industry landscape — its tools, training, and headcount — to provide the most effective and efficient reliability organization for the Western Interconnection.

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<sup>21</sup> As of May 31, 2009 one of these positions is vacant.

<sup>22</sup> NERC, 119 FERC ¶ 61,059 (April 19, 2007).

## **E. Budgeting**

### **1. Describe Regional Entity's activities and accomplishments in the development and submission of its annual business plan and budget, beginning with the 2007 business plan and budget.**

Every year, WECC has improved the detail and depth of its business plan and budget, and has improved consistency, formatting, and topics with the other regions. WECC carries reserves to cover unforeseen expenditures.

#### **2007 Business Plan and Budget Preparation Process**

The 2007 budget preparation process went smoothly, considering it was WECC's first year as a Regional Entity. As a transition year, some of the processes were carry-overs from WECC's historic methods. Specifically, the WECC budget was prepared using WECC's accounting system account numbers, which differed from the ERO format. Consequently, WECC's budget template had to map the NERC ERO accounts and program areas to the WECC accounts. All payroll tax costs and benefit costs were budgeted in General and Administrative, and were allocated out to the departments along with other overhead costs (such as rent or office supplies) based on headcount. Capital items were included in the operating budget and were capitalized at the end of the year after final NERC reports were produced.

WECC staff produced the 2007 Business Plan and Budget, which was subsequently approved by WECC management and the WECC Board prior to submission to NERC.

#### **2008 Business Plan and Budget Preparation Process**

The processes used in 2007 were followed for the preparation of the 2008 Business Plan and Budget. WECC was able to use existing spreadsheet tools in conjunction with the new ERO budgeting process and NERC reporting templates. However, after a significant portion of the 2008 business plan was written, NERC modified the format and supplied a template for WECC and the other Regional Entities to follow. The business plan was revised to conform to the NERC template. The chief administrator provided financial data and the directors provided program information.

#### **2009 Business Plan and Budget Preparation Process**

The 2009 business plan was more comprehensive and provided more detail than the plans from 2007 and 2008. This was due to both the development of a WECC strategic plan and the more detailed NERC templates supplied for the 2009 Business Plan and Budget. WECC began the development of a three-to-five-year strategic plan in 2007. The 2009 Business Plan and Budget was the first budget that incorporated material from the strategic plan. Additionally, the NERC templates provided more direction as to the requested financial information. WECC also discontinued the allocation of internal overheads to the various department budgets in the 2009 budget. This change was mainly to conform with methodology used by NERC by allocating expenses of designated indirect expense departments to the program areas in one lump sum based on full-time equivalents.

**2. State Regional Entity's assessment of its own effectiveness in developing its business plans and budgets and in the submission of its business plans and budgets in a consistent manner with NERC and the other Regional Entities.**

WECC has been very effective in developing its business plans and budgets, and in modifying internal processes and tools to meet NERC ERO requirements. Every department participates and NERC deadlines have been consistently met. With each successive year, WECC has adapted the process to make it more efficient and effective.

For 2007, WECC results came in \$618,000 over budget (three percent), mainly due to the uncertainties surrounding the CMEP area. Based on the evolving nature of the business, WECC believes that the budget preparation process went very well and was extremely effective. A three-percent budget over-run is minimal considering the rapidly changing environment in which WECC is operating. In 2008, WECC stopped the internal overhead allocations because the methodology was not consistent with NERC and the other Regional Entities, and because it created unnecessary and duplicative work.

The 2009 plan is the most consistent to date and improvements for 2010 are in process, as discussed in WECC's response to Item 3. WECC and the other Regional Entities will continue their endeavors to increase consistency across regions in the preparation and presentation of their business plans and budgets.

With each budget year, WECC has become more adept at preparing its annual budget and business plan. Marked improvements in the business plans and budgets submitted to NERC from 2007 to 2009 are obvious when examining the documents side-by-side. The 2009 Business Plan and Budget is much more thorough and comprehensive than in years past (89 pages versus 27 in 2008 and 23 pages in 2007). The Regional Entities have done an excellent job of working together to help make these documents more consistent for ease of reading and understanding across the regions.

**3. State any proposals of the Regional Entity to improve its effectiveness in submitting effective, adequate and consistent business plans and budgets.**

WECC's current treatment of certain costs such as payroll and benefits is not consistent with other Regional Entities. WECC has included these costs in the General and Administrative area, and they are then allocated out to the various program areas with General and Administrative and other indirect costs. For 2010, WECC will modify the budgeting process to include all direct and identifiable costs in the program areas to which they relate.

For the 2010 budgeting process, one of the goals of all the Regional Entities is to make budgets consistent so far as the methodology used. The Regional Entities have been meeting to generate ideas of how to improve this process and how to improve consistency across regions.

WECC will continue to increase the role of program area directors in the budget preparation process and will also continue to refine the budgets for use as a management tool. In late 2008, monthly budget-to-actual meetings were scheduled with directors and those meetings are now part of the monthly

financial reporting and review process. The regularly recurring meetings are also excellent building blocks for the upcoming 2010 budget preparation process.

WECC stakeholders have indicated a desire for the opportunity to provide input into the annual budgeting process. For the 2010 budget greater input than in previous years, was solicited from Chairs and Vice-Chairs of the OC, PCC, TEPPC, and MIC prior to the first budget review meeting with the Finance and Audit Committee. WECC's FAC meetings, where the draft budgets are reviewed, are open meetings and stakeholders are welcome to participate in person or via teleconference.

In response to the first round of stakeholder feedback, WECC staff, in concert with the WECC FAC, revised WECC's 2010 budget timelines to incorporate a public comment period. As part of this process, WECC posted the first and second drafts of its 2010 Business Plan and Budget on the WECC Web site and invited comments. In addition, the drafts were sent by email to the WECC Board and WECC Member representatives and comments invited. WECC received one comment as a result of its public posting process and posted its response on the WECC Web site.

In addition, WECC stakeholders commented on the need for greater transparency around cost increases and how they add value or contribute to risk management. The NERC template that has been developed for use by the Regional Entities for the 2010 business plan and budget addresses this concern by including budget assumptions, cost impacts, goals, objectives and explanations of increases and decreases in funding requirements.