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NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

EXHIBIT A

TO

FIVE-YEAR ELECTRIC RELIABILITY ORGANIZATION PERFORMANCE ASSESSMENT REPORT

DISCUSSION OF HOW NERC MEETS THE ERO CERTIFICATION CRITERIA OF 18 C.F.R. §39.3(b)

JULY XX, 2019

EXHIBIT A

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I. DISCUSSION OF HOW NERC MEETS THE ERO CERTIFICATION CRITERIA OF 18 C.F.R. § 39.3(b)

A. Criterion 1 - The ERO has the ability to develop and enforce, pursuant to 18 C.F.R. § 39.7, Reliability Standards that provide for an adequate level of reliability of the BPS.

This criterion encompasses two distinct functions of the ERO: (i) the ability to develop Reliability Standards that provide for an adequate level of reliability of the bulk power system ("BPS"); and (ii) the ability to enforce those Reliability Standards.

Development of Reliability Standards

NERC develops Reliability Standards pursuant to §300 of its Rules of Procedure ("ROP") and its *Standard Processes Manual* ("SPM"), Appendix 3A to the ROP, both of which have been approved by the Commission as ERO Rules.[1] In accordance with Section 316 of NERC's Rules of Procedure, NERC maintains its accreditation as an American National Standards Institute (ANSI)-accredited standards developer by demonstrating that its SPM meets ANSI's essential requirements for standards development.

The overall purpose of NERC's Reliability Standards development process, as stated in §301 of the NERC ROP, is to develop and maintain Reliability Standards that apply to BPS users, owners and operators and that enable NERC and the Regional Entities to measure the reliability performance of the users, owners and operators and to hold them accountable for the reliable operation of the BPS. Section 301 of the ROP requires that Reliability Standards developed by NERC must be technically excellent, timely, just, reasonable, not unduly discriminatory or preferential, in the public interest, and consistent with other applicable standards of governmental authorities.[2]

In Order No. 672 and the ERO Certification Order, the Commission stated that the ERO's Reliability Standards development process must ensure that each Reliability Standard is technically sound; that its operational specifications are designed to achieve a valuable reliability goal; that the standard is clear and unambiguous regarding what is required and who is required to comply; and that there be clear criteria to measure whether an entity is in compliance with the Reliability Standard, so that enforcement can be applied in a consistent and non-preferential manner.[3] Consistent with these requirements, §302 of the ROP specifies the essential attributes of

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[1] Sections 304 and 308.1 of the ROP specify that "NERC shall develop Reliability Standards in accordance with the NERC *Standard Processes Manual*, which is incorporated into these Rules of Procedure as Appendix 3A." The current version of the SPM is version 4 which became effective March 1, 2019. *N. Am. Elec. Reliability Corp.*, Docket No. RR19-2-000 (March 1, 2019) (delegated letter order).

[2] Section 304 of the ROP sets forth NERC's "Essential Principles for the Development of Reliability Standards." These principles, which include openness, transparency, consensus-building, fair balance of interests, due process and timeliness, are discussed under criterion 5, below.

[3] *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 (2006),

technically excellent Reliability Standards to be developed by NERC.[4] These essential attributes include:[5]

1. **Applicability** — Each Reliability Standard shall clearly identify the functional classes of entities responsible for complying with the Reliability Standards, with any specific additions or exceptions noted.[6]

2. **Reliability Objectives** — Each Reliability Standard must have a clear statement of purpose that describes how the Reliability Standard contributes to the reliability of the BPS. Section 302.2 of the ROP lists the general objectives for the BPS that provide a foundation for determining the specific objective(s) of each Reliability Standard:[7]

    2.1. **Reliability Planning and Operating Performance** — Bulk Power Systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions.

    2.2. **Frequency and Voltage Performance** — The frequency and voltage of Bulk Power Systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

    2.3. **Reliability Information** — Information necessary for the planning and operation of reliable Bulk Power Systems shall be made available to those entities responsible for planning and operating Bulk Power Systems.

    2.4. **Emergency Preparation** — Plans for emergency operation and system restoration of Bulk Power Systems shall be developed, coordinated, maintained, and implemented.

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at PP 258, 262, 325, 327; *Order Certifying North American Electric Reliability Corporation as the Electric Reliability Organization and Ordering Compliance Filing*, 116 FERC ¶ 61,062 (ERO Certification Order), at PP 239, 241.

[4] In the ERO Certification Order, the Commission recognized that NERC's proposed ROP provided that the characteristics for technical excellence of a Reliability Standard must be met for a proposed Reliability Standard to be approved. ERO Certification Order at P 235.

[5] The descriptions of the essential attributes that follow are summaries, not direct quotes from §302.

[6] The functional classes of entities, or reliability functions, have been developed through NERC's functional model of the BPS, and are defined in its: (i) *Glossary of Terms Used in NERC Reliability Standards*, and (ii) *Statement of Compliance Registry Criteria* which is incorporated into the ROP as Appendix 5B. Currently, the functional classes of entities are: Balancing Authorities, Distribution Providers, Frequency Response Sharing Groups, Generator Operators, Generator Owners, Planning Authorities/Planning Coordinators, Regulation Reserve Sharing Groups, Reliability Coordinators , Reserve Sharing Groups, Resource Planners, Transmission Operators, Transmission Owners, Transmission Planners, and Transmission Service Providers.

[7] In the ERO Certification Order, the Commission recognized that NERC's proposed rules provided that the purpose of a Reliability Standard, or its reliability objective, should derive from one or more of these eight general objectives. ERO Certification Order at P 236.

2.5. **Communications and Control** — Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of Bulk Power Systems.

2.6. **Personnel** — Personnel responsible for planning and operating Bulk Power Systems shall be trained and qualified, and shall have responsibility and authority to implement actions.

2.7. **Wide-Area View** — The reliability of Bulk Power Systems shall be assessed, monitored, and maintained on a Wide-Area basis.

2.8. **Security** — Bulk Power Systems shall be protected from malicious physical or cyber attacks.

3. **Performance Requirement or Outcome** — Each Reliability Standard shall state one or more performance Requirements, which if achieved by the applicable entities, will provide for a reliable BPS, consistent with good utility practices and the public interest. Each Requirement is not a "lowest common denominator" compromise, but instead shall achieve an objective that is the best approach for BPS reliability, taking account of the costs and benefits of implementing the proposal.

4. **Measurability** — Each performance Requirement shall be stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by the Requirement. Each performance Requirement shall have one or more associated measures used to objectively evaluate compliance with the Requirement. If performance can be practically measured quantitatively, metrics shall be provided to determine satisfactory performance.

5. **Technical Basis in Engineering and Operations** — Each Reliability Standard shall be based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that field.

6. **Completeness** — Reliability Standards shall be complete and self-contained. The Reliability Standards shall not depend on external information to determine the required level of performance.

7. **Consequences for Noncompliance** — In combination with guidelines for penalties and sanctions and other ERO and Regional Entity compliance documents, the consequences of violating a Reliability Standard are clearly presented to the entities responsible for complying with the Reliability Standards.

8. **Clear Language** — Each Reliability Standard shall be stated using clear and unambiguous language. Responsible entities, using reasonable judgment and in keeping with good utility practices, are able to arrive at a consistent interpretation of required performance.

9. **Practicality** — Each Reliability Standard shall establish Requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter.

10. **Consistent Terminology** — To the extent possible, Reliability Standards shall use a set of standard terms and definitions that are approved through the NERC Reliability Standards development process.[8]

In the ERO Certification Order, the Commission concluded that by specifying the eight general objectives for which a Reliability Standard must be intended, and by incorporating other requirements for Reliability Standards development into the essential attributes of technically excellent Reliability Standards, NERC's ROP satisfied the requirements of Order No. 672 for the ERO's Reliability Standards development process.[9]

The NERC SPM also specifies the performance elements of a Reliability Standard.[10] The requirement that each Reliability Standard contain these elements applies a systematic discipline in the development and revision of standards, in order to produce standards that are measurable, enforceable, and consistent. The SPM allows for a clear statement of the purpose, requirements, measures, and compliance elements associated with each standard. The performance elements of a Reliability Standard, as specified in the SPM § 2.5, are as follows:

- Title: A brief, descriptive phrase identifying the topic of the Reliability Standard.
- Number: A unique identification number assigned in accordance with a published classification system to facilitate tracking and reference to the Reliability Standards.
- Purpose: The reliability outcome achieved through compliance with the Requirements of the Reliability Standard.
- Applicability: Identified which entities are assigned reliability requirements. The specific Functional Entities and Facilities to which the Reliability Standard applies.
- Effective Dates: Identification of the date or pre-conditions determining when each Requirement becomes effective in each jurisdiction.

[8] In furtherance of the essential attribute of "Consistent Terminology," NERC has developed and maintains the *Glossary of Terms Used in NERC Reliability Standards*, https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf, containing definitions of terms that are used in one or more Reliability Standards.

[9] ERO Certification Order at PP 239, 241.

[10] *See generally* SPM at Section 2.0.

- Requirement: An explicit statement that identifies the Functional Entity responsible, the action or outcome that must be achieved, any conditions achieving the action or outcome, and the reliability-related benefit of the action or outcome. Each Requirement shall be a statement for which compliance is mandatory.

- Compliance Elements: Elements to aid in the administration of ERO compliance monitoring and enforcement responsibilities.

- Measure: Provides identification of the evidence or types of evidence that may demonstrate compliance with the associated requirement.

- Violation Risk Factors and Violation Severity Levels: Violation risk factors (VRFs) and violation severity levels (VSLs) are used as factors when determining the size of a penalty or sanction associated with the violation of a requirement in an approved Reliability Standard. Each requirement in each Reliability Standard has an associated VRF and a set of VSLs. VRFs and VSLs are developed by the drafting team, working with NERC staff, at the same time as the associated Reliability Standard, but are not part of the Reliability Standard. The Board of Trustees is responsible for approving VRFs and VSLs.

    - Violation Risk Factors: VRFs identify the potential reliability significance of noncompliance with each requirement. Each requirement is assigned a VRF in accordance with the last approved set of VRF criteria.
    - Violation Severity Levels: VSLs define the degree to which compliance with a requirement was not achieved. Each requirement shall have at least one VSL. While it is preferable to have four VSLs for each requirement, some requirements do not have multiple "degrees" of noncompliant performance and may have only one, two, or three VSLs. Each requirement is assigned one or more VSLs in accordance with the latest approved set of VSL criteria.

- Version History: The version history is provided for informational purposes and lists information regarding prior versions of Reliability Standards.

- Variance: A Requirement (to be applied in the place of the continent-wide Requirement) that is applicable to a specific geographic area or to a specific set of registered entities.

- Compliance Enforcement Authority: The entity that is responsible for assessing performance or outcomes to determine if an entity is compliant with the associated Reliability Standard. The Compliance Enforcement Authority [(CEA)] will be NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

The NERC SPM sets forth the detailed process steps for the development and approval of a new Reliability Standard or a revision to an existing standard; the SPM also sets forth the detailed roles of the different persons and groups in in the process.[11] Under the ROP and the SPM, the key groups involved in development of a proposed new Reliability Standard or revision to an existing standard are: (i) the Standards Committee; (ii) the standards authorization request ("SAR") drafting team; (iii) the standard drafting team; and (iv) the Registered Ballot Body ("RBB").

The Standards Committee is an elected body comprised of two members from each segment of the RBB.[12] The Standards Committee, with the assistance and facilitation of the professional staff of the NERC Reliability Standards development program, oversees the overall standards development process. The Standards Committee ensures that standard development teams have the technical resources and capabilities required to develop technically sound standards that will gain industry support. Among other things, the Standards Committee determines whether SARs, and any associated technical information for the development of a standard, submitted by interested persons and entities should be pursued for development, and it appoints members to SAR drafting teams and standard drafting teams.[13] A SAR drafting team is a team of technical experts that, among other responsibilities, assists in refining a SAR and considers and responds to comments.[14] The standard drafting team is a team of technical experts that develops the details of the proposed new or revised Reliability Standard, analyzes results of field tests of the standard (if applicable), and considers and responds to comments.[15] The RBB, which is open to any person or entity and is organized by industry segments, votes on the adoption or rejection of proposed Reliability Standards or revisions to existing standards.[16]

The SPM also specifies roles in the standards development process for the NERC Reliability Standards staff, which is led by the director of standards.[17] Staff provides support to the Standards Committee in managing the Reliability Standards processes and in supporting the work of all drafting teams. More specifically, staff is responsible for ensuring that development and revision of standards is in accordance with the SPM, works to ensure the integrity of the Reliability Standards development process and the consistency of quality and completeness of NERC Reliability Standards, and facilitates all steps in the standards development process.

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[11] The ROP also provides for an expedited standards development process in the event an applicable governmental authority directs the development of a Reliability Standard within a certain timeframe. This process is described in §309.3 of the ROP.

[12] The segment organization of the RBB is set forth in detail in the *Registered Ballot Body Criteria*, Appendix 3D to the ROP.

[13] *See* SPM §§ 3.4 and 3.6.

[14] *See* SPM § 4.2.

[15] SPM § 4.3.

[16] ROP § 305; SPM at §§ 3.2 and 4.7-4.14. Following successful balloting by the ballot pool, a proposed standard is submitted to the NERC Board of Trustees for approval, and if approved by the Board, is filed with the Commission for approval in accordance with § 215(d) of the FPA and 18 C.F.R. § 39.5. NERC Bylaws, Article IX, §1; ROP §§ 308.2, 308.3, and 309; and SPM at §§ 4.0 and 4.15.

[17] SPM at § 3.5; *see also* ROP § 307.

The NERC standards development process relies on the legal and technical expertise provided by the industry experts comprising the SAR drafting teams and standard drafting teams, the technical and administrative assistance provided by the NERC standards process managers and the NERC standards process staff, and the overall oversight and direction of the Standards Committee. Thus, the NERC standards development process ensures that the essential attributes of technically excellent Reliability Standards, including the accomplishment of one of the eight general reliability objectives specified in §§ 302.2.1 through 302.2.8 of the ROP, are represented in each Reliability Standard that is developed or revised through the process and submitted to the NERC Board of Trustees and, ultimately, to the Commission for approval.

Over the last decade, NERC has made substantial progress in developing a body of Reliability Standards to address risks to the BPS, including addressing the vast majority of the Commission's directives for new or revised Reliability Standards in Order No. 693.[18] While the year-over-year figures are lower than the previous Assessment Period, NERC continues to invest significant resources to support its Reliability Standards program. The following table presents the direct budgeted expenses for the Reliability Standards program for 2015-2019:[19]

Year	**Amount**
2015:	$4,800,751
2016:	$3,888,768
2017	$3,861,666
2018:	$3,332,944
2019:	$3,377,356

Over the course of the Assessment Period, NERC has transitioned the focus of the standards program toward maintaining a body of Reliaiblity Standards that efficiently and effectively address the current reliability risks to the BPS. During the Assessment Period, NERC has initiated projects to develop new or revised Reliability Standards, perform periodic reviews,

[18] *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).

[19] *See NERC 2015 Business Plan and Budget* at 44 and Attachment 2 at 1, filed in Docket No. RR14-6-000 on August 22, 2014; *NERC 2016 Business Plan and Budget* at 43 and Attachment 2 at 20;, filed in Docket No. RR15-16-000 on August 24, 2015; *NERC 2017 Business Plan and Budget* at 45 and Attachment 2 at 24, filed in Docket No. RR16-6-000 on August 23, 2016; *NERC 2018 Business Plan and Budget* at 31 and Attachment 2 at 25, filed in Docket No. RR17-7-000 on August 23, 2017; *NERC 2019 Business Plan and Budget*,Attachment 2 at 20, filed in Docket No. RR18-9-000 on August 24, 2018 The amounts cited are direct expenses only and do not include NERC indirect expenses (General and Administrative, Information Technology, Legal and Regulatory, Human Resources, and Finance and Accounting) allocated to the Reliability Standards Program Area.

and to revise the SPM and Functional Model. As discussed below, NERC has also initiated a Standards Efficiency Review project.[20]

During the Assessment Period, the Commission has continued to approve new and revised Reliability Standards as mandatory and enforceable. This demonstrates that NERC has, and has exercised, the ability to develop Reliability Standards that provide for an adequate level of reliability of the BPS.

Further, the continent-wide Reliability Standards that have been developed by NERC and approved by the Commission cover the full range of reliability objectives specified in §302 of the NERC ROP:

- Resource and Demand Balancing
- Communications
- Critical Infrastructure Protection
- Emergency Preparedness and Operations
- Facilities Design, Connections and Maintenance
- Interchange Scheduling and Coordination
- Interconnection Reliability Operations and Coordination
- Modeling, Data, and Analysis
- Nuclear
- Personnel Performance, Training and Qualifications
- Protection and Control
- Transmission Operations
- Transmission Planning
- Voltage and Reactive Power

In accordance with the template and performance elements specified in the SPM, each approved Reliability Standard contains the following clearly-identified sections and subsections: (i) Applicability — stating the title of the standard, its identification number, its purpose, the reliability functional entities to which it is applicable, and its effective date; (ii) Requirements; (iii) Measures; (iv) Compliance — stating the entity responsible for monitoring compliance; the

[20] https://www.nerc.com/pa/Stand/Pages/Standards-Efficiency-Review.aspx

compliance monitoring period and reset timeframe; data retention requirements for the registered entities; and the levels of noncompliance for specified types of violations of the standard; and (v) Regional Variances, if any.

The inclusion of these elements helps to ensure that Reliability Standards clearly state who is responsible for compliance with a Reliability Standard, the Requirements for which compliance is required, and how compliance may be measured by the CEA.

NERC systematically manages the development of new standards and revisions to standards, in areas of highest need and importance, through its rolling three-year *Reliability Standards Development Plan*. The *Reliability Standards Development Plan* identifies and prioritizes the Reliability Standards development projects in the immediate three-year time horizon. The three-year *Reliability Standards Development Plan* is revised annually, based on input from NERC staff, standards grading activities, the standard drafting teams, the NERC technical committees and subgroups, other industry participants, and government authorities. The three-year rolling *Reliability Standards Development Plan*, as revised each year, is submitted to the NERC Board of Trustees for approval and then filed with the Commission for information. The *Reliability Standards Development Plan 2019-2021* was approved by the NERC Board of Trustees on November 7, 2018 and recognizes the diligent work over the last few years in transforming the body of NERC Reliability Standards into a mature state while shifting the focus of the standards program to periodic reviews of existing Reliability Standards, addressing Commission directives, emerging risks, and any Standard Authorization Requests (SARs) that are submitted, and implementing the standards grading initiative.[21]

The plan also addresses projects related to the Standards Efficiency Review. In 2018, NERC and industry completed a comprehensive review of the Operations & Planning Reliability Standards to measure their effectiveness and ability to mitigate the risks to the reliability and security of the BPS, compared to the industry burden for their implementation. This review has informed the need to retire or enhance requirements based on operational experience, and included an analysis of reliability risk, particularly emerging risks, and and any identified cost-effective alternatives were considered. NERC is planning a second phase to examine CIP Reliability Standards.

Enforcement of Reliability Standards

NERC's program for monitoring and enforcing compliance with Commission-approved Reliability Standards is implemented through its *Compliance Monitoring and Enforcement Program* (CMEP) (§400 and Appendix 4C to the ROP), its Organization Registration and

[21] The *Reliability Standards Development Plan 2019-2021*, along with previous versions of the plan, are available at: http://www.nerc.com/pa/Stand/Pages/ReliabilityStandardsDevelopmentPlan.aspx.[22] The delegation agreements were originally approved by the Commission in an order issued April 19, 2007 (*Order Accepting ERO Compliance Filing, Accepting ERO/Regional Entity Delegation Agreements, and Accepting Regional Entity 2007 Business Plans*, 119 FERC ¶ 61,060 (2007)), subject to various compliance requirements, which have been addressed in subsequent compliance filings and Commission orders. The currently-effective delegation agreements will expire on December 31, 2015.

Certification Programs (§500 to the ROP), its *Sanction Guidelines* (Appendix 4B to the ROP), and its delegation agreements with the Regional Entities.[22]

Section 6(a) of NERC's delegation agreements with the Regional Entities specifies that the Regional Entity shall enforce Reliability Standards within its geographic boundaries through the compliance enforcement program set forth in Exhibit D to the agreement, and that the Regional Entity's compliance monitoring and enforcement program meets all applicable requirements of the FPA, Commission Order No. 672, and the Commission's regulations, including, *inter alia*, the requirement for an audit program pursuant to 18 C.F.R. §39.7(a), the assessment of penalties pursuant to 18 C.F.R. § 39.7(c) through 39.7(g), and the requirements for due process. Additionally, § 6(f) of the delegation agreements requires the Regional Entity to maintain the capability to conduct investigations of potential violations of Reliability Standards and to conduct such investigations in a confidential manner. It also requires the Regional Entity to maintain a program of proactive enforcement audits, including procedures for spot checks of self-reported compliance and periodic audits of all registered entities.

Through the NERC Organization Registration and Certification Programs, NERC and the Regional Entities have identified users, owners, and operators of the BPS that are obligated to comply with Commission-approved NERC Reliability Standards.[23] Section 500 of the NERC ROP governs the registration of users, owners, and operators of the BPS as responsible for compliance with the requirements of Reliability Standards that are applicable to the reliability function for which the entity is registered. The purpose of the NERC Compliance Registry, established pursuant to § 501 of the ROP, is to clearly identify those entities that are responsible for compliance with Reliability Standards. The NERC Compliance Registry identifies the reliability functions to be performed by each organization responsible for meeting the requirements of Reliability Standards. Organizations listed in the NERC Compliance Registry are responsible for knowing the contents of, and complying with, Reliability Standards applicable to the reliability function(s) for which the entity is registered.[24] The criteria upon which users, owners and operators of the BPS will be registered for one or more reliability functions are specified in §501 of the ROP and in NERC's FERC-approved *Statement of Compliance Registry Criteria* (Appendix 5B to the ROP). The purpose of the *Organization Registration and Certification Manual* (Appendix 5A) is twofold: (i) to define the process utilized in the Organization Registration Program by identifying which functional entities must register as users, owners and operators, and users of the BPS for compliance with Reliability Standards; and (ii) to define the process utilized

[22] The delegation agreements were originally approved by the Commission in an order issued April 19, 2007 (*Order Accepting ERO Compliance Filing, Accepting ERO/Regional Entity Delegation Agreements, and Accepting Regional Entity 2007 Business Plans*, 119 FERC ¶ 61,060 (2007)), subject to various compliance requirements, which have been addressed in subsequent compliance filings and Commission orders. The currently-effective delegation agreements will expire on December 31, 2015.

[23] Section 215(b)(2) of the FPA requires all users, owners and operators of the BPS to comply with Reliability Standards approved by the Commission. Similarly, the Commission's regulations at 18 C.F.R. § 39.2 and § 40.2 require all users, owners, and operators of the BPS to comply with applicable Reliability Standards and applicable rules of the ERO and Regional Entities approved by the Commission.

[24] ROP §501. The current categories of reliability functional entities are listed in ROP Appendix 5B, *Statement of Compliance Registry Criteria*. *See also supra* n.6.

in the Organization Certification Program for certifying the following entities: Reliability Coordinator, Balancing Authority, and Transmission Operator.

Typically, a user, owner or operator of the BPS is identified, in the first instance, for placement on the NERC Compliance Registry by the Regional Entity in whose territory the user, owner or operator is located. Upon the entity being notified by NERC that it is being placed on the NERC Compliance Registry, the entity may challenge its inclusion on the NERC Compliance Registry by filing a written objection with NERC.[25] If the entity whose registration is at issue does not agree with the initial determination of the NERC-led review panel, the entity may file an appeal with the NERC Board Compliance Committee ("BOTCC").[26] NERC may remove a registered entity from the NERC Compliance Registry for one or more of the reliability functions for which the entity is listed, based on changed circumstances. As of December 31, 2018, there were 1,416 organizations listed on the NERC Compliance Registry, registered for 3,396 reliability functions.

Monitoring and enforcement of compliance with Reliability Standards is conducted primarily by NERC's Regional Entities, pursuant to § 401.4 of the NERC ROP and the delegation agreements between NERC and the Regional Entities. Each Regional Entity is responsible for compliance monitoring and enforcement activities within its regional footprint.[27] The ROP provide for NERC to take responsibility for CMEP activities where a Regional Entity is unable to perform those functions, as well as to be responsible for overseeing the CMEP activities of the Regional Entities.[28] Section 403 of the ROP describes in detail the required attributes of Regional Entity compliance programs, covering compliance program structure, compliance program resources, and compliance program design. Section 403 emphasizes the requirement that the Regional Entity's governance of its compliance program, and its compliance program staff, be independent.[29] Each Regional Entity must develop an annual Regional Entity Compliance Enforcement Implementation Plan that identifies the regional risk assessment processes and results, Reliability Standards and Requirements associated with regional risk assessment results, the methods to be used by the Regional Entity for reporting, monitoring, evaluating,

[25] A user, owner, or operator of the BPS may be listed on the NERC Compliance Registry for several reliability functions. A registered entity may challenge its listing for one or more of the reliability functions for which it has been registered while accepting its listing for other reliability function(s).

[26] The registration, challenge, and appeal process described in this paragraph is set forth in § 501.1.3 of the ROP as well as Appendix 5A.

[27] ROP § 401.4.

[28] ROP §§ 401.5, 402, and 404. The Commission has also approved the practice of one Regional Entity entering into an agreement with another Regional Entity to administer the compliance processes in the NERC CMEP with respect to the Regional Entities' registered functions. *See, e.g., Order Conditionally Accepting Compliance Monitoring and Enforcement Program Agreements and Revised Delegation Agreements, and Ordering Compliance Filing*, 132 FERC ¶ 61,024 (2010).

[29] ROP §§ 403.1 and 403.6.

and assessing performance criteria and the Regional Entity's Annual Audit Plan.[30] These plans must be developed on an annual basis and submitted to NERC for approval. In its annual Implementation Plan, each Regional Entity must also report to NERC how the Regional Entity carried out its delegated compliance enforcement authority in the previous year, the effectiveness of its CMEP, and changes expected to correct any identified deficiencies.[31]

NERC is required to conduct an audit, at least once every five years, to evaluate how each Regional Entity implements the NERC CMEP.[32] The evaluation is based on the ROP including the NERC CMEP, the delegation agreement with the Regional Entity, the approved Regional Entity annual CMEP Implementation Plans, the required CMEP attributes, and the CMEP procedures. NERC must provide its evaluations to the Commission and other appropriate ERO governmental authorities to demonstrate the effectiveness of each Regional Entity in compliance monitoring and enforcement.[33]

The controlling document for NERC's compliance monitoring and enforcement activities is the Uniform CMEP, Appendix 4C to the ROP. Pursuant to Exhibit D to its delegation agreement with NERC, each Regional Entity has either adopted the Uniform CMEP or a modified version of the CMEP; in the latter case, the modified CMEP, or an enumeration of any deviations in the Regional Entity's CMEP from the uniform CMEP, is included in Exhibit D to the Regional Entity's delegation agreement. All CMEPs have been approved by the Commission.[34]

The NERC CMEP (as well as each of the modified Regional Entity CMEPs) provide for the following compliance monitoring processes: (i) audits of registered entities for compliance with Reliability Standards;[35] (ii) self-certifications by registered entities of their compliance with

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[30] ROP §§ 402.1.1.1 and 403.16.

[31] ROP § 403.16.

[32] ROP § 402.1.1.3.

[33] ROP § 402.1.3. The audit procedure for NERC's audits of the Regional Entity CMEPs is contained in *Audit of Regional Entity Compliance Programs*, Appendix 4A to the ROP.

[34] The Commission initially approved the NERC CMEP and modified CMEPs adopted by certain Regional Entities in their respective delegation agreements, subject to various compliance requirements, in its Order issued April 19, 2007. *Order Accepting ERO Compliance Filing, Accepting ERO/Regional Entity Delegation Agreements, and Accepting Regional Entity 2007 Business Plans*, 119 FERC ¶ 61,060 (2007). Subsequent Commission orders have approved modifications to the NERC CMEP and Regional Entity CMEPs (both modifications in response to Commission directives and modifications initiated by NERC and/or Regional Entities). *See, e.g., Order Conditionally Approving Revised Pro Forma Delegation Agreement, Revised Delegation Agreements with Regional Entities, Amendments to Rules of Procedure and Certain Regional Entity Bylaws*, 133 FERC ¶ 61,061 (2010); *Order Conditionally Accepting Compliance Monitoring and Enforcement Program Agreements and Revised Delegation Agreements, and Ordering Compliance Filings*, 132 FERC ¶ 61,024 (2010); *Order Conditionally Approving Revisions to North American Electric Reliability Corporation Rules of Procedure*, 141 FERC ¶ 61,241 (2012).

[35] NERC ROP, Appendix 4C.

standards;[36] (iii) spot checks of registered entities' compliance with Reliability Standards;[37] (iv) compliance investigations ("CIs"), which may be conducted and led by the Regional Entity or by NERC;[38] (v) self-reports by registered entities of violations of Reliability Standards;[39] (vi) self-logging; (vii) periodic data submittals by registered entities as requested by the CEA;[40] (viii) complaints; and (ix) preliminary screens.[41] The NERC CMEP sets forth detailed process steps for each of the seven compliance monitoring methods, including requirements for the results of the processes to be reported by the Regional Entity to NERC and ultimately to the Commission. The NERC CMEP provides for due process for a registered entity by including provisions that address avoidance of conflicts of interest,[42] preservation of confidentiality,[43] provision of notice, and opportunities to respond.[44]

As specified by § 4.1 of the NERC CMEP, NERC develops and posts an annual CMEP Implementation Plan each year which focuses on risks for the upcoming year. The ERO Enterprise has a consolidated Implementation Plan which provides ERO-Enterprise-wide guidance while preserving Regional Entity differences by appending Regional Entity-specific Implementation Plans. The Regional Entity-specific Implementation Plans describe risk assessments that identify the risks that the REs will consider as part of their monitoring activities for registered entities..

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[36] NERC ROP, Appendix 4C; § 3.2.

[37] NERC ROP, Appendix 4C; § 3.3.

[38] NERC ROP, Appendix 4C; § 3.4.

[39] NERC ROP, Appendix 4C; § 3.5.

[40] NERC ROP, Appendix 4C; § 3.6. The CEA is the entity (either NERC or the Regional Entity, as applicable) responsible for monitoring and enforcing the registered entity's compliance with Reliability Standards. CMEP §1.1.7.

[41] NERC ROP, Appendix 4C; § 3.7.

[42] For example, the registered entity is notified in advance of a compliance audit as to the members of the audit team (who are required to be free of conflicts of interest) and their backgrounds and is given the opportunity to object to individual members of the audit team on grounds of a conflict of interest or other circumstance that could interfere with the team member's impartial performance of his or her duties. *See* CMEP § 3.1.5. Similar notice and opportunity to object is provided with respect to spot checking teams (*id*. at § 3.3.1) and CI teams (*id*. at §3.4.1). In addition, §6 of the NERC-Regional Entity delegation agreements requires the Regional Entity to maintain a conflict of interest policy that assures the integrity of its compliance enforcement program and the independence of the compliance program staff from those subject to enforcement actions.

[43] NERC ROP, Appendix 4C §§ 2.0 and 9.3. In addition, § 6 of the NERC-Regional Entity delegation agreements specifies that each violation or alleged violation of a Reliability Standard shall be treated as nonpublic until the matter is filed with the Commission as a notice of penalty or resolved by an admission that the owner, operator, or user of the BPS violated a Reliability Standard or by a settlement or other negotiated disposition.

[44] For example, the CEA must notify the registered entity in advance of a compliance audit as to the Reliability Standards to be covered by the audit, and must provide a pre-audit questionnaire to the registered entity at least two months before commencement of the audit. NERC uniform CMEP § 3.1.1. At the conclusion of the audit, the compliance audit team is required to provide a draft audit report to the registered entity for comment. *Id*. § 3.1.6. Similarly, in the spot check and periodic data submittal processes, the CEA is required to provide its draft assessment of compliance to the registered entity for comment. *Id*. §§ 3.3.1 and 3.6.1.

The NERC CMEP also specifies the processes to be followed when an alleged violation of a Reliability Standard by a registered entity is identified,[45] including notification to the registered entity of an alleged violation and the required contents of the notice;[46] the registered entity's response to the notification of alleged violation;[47] the opportunity for the registered entity to obtain a hearing on the alleged violation and/or proposed penalty or sanction before the CEA hearing body;[48] the process the registered entity may engage in to negotiate a settlement with the CEA;[49] the registered entity's right to appeal a hearing body decision to NERC;[50] and the process for reporting a penalty or sanction to the Commission for confirmation.[51]

The NERC CMEP requires that a registered entity found to be in violation of a Reliability Standard must file a mitigation plan with the CEA to correct the violation, or a description of how the violation has been mitigated.[52] The NERC CMEP describes the required contents of the registered entity's proposed mitigation plan;[53] the processes for submittal of the proposed mitigation plan,[54] for review and acceptance or rejection of the proposed mitigation plan and for review and approval or disapproval by NERC (and, in the latter event, modification of the mitigation plan by the registered entity);[55] the timetable for completion of an accepted mitigation plan;[56] and the process for completion and confirmation by the CEA of implementation of the registered entity's mitigation plan.[57] Key components required by the NERC CMEP to be in any

[45] NERC ROP, Appendix 4C§ 5.0.

[46] NERC ROP, Appendix 4C§§ 5.1 and 5.3.

[47] NERC ROP, Appendix 4C§ 5.4.

[48] NERC ROP, Appendix 4C§ 5.5 and Attachment 2, *Hearing Procedures*. The *Hearing Procedures* set forth the detailed procedures for the hearing to be conducted before the CEA hearing body should a registered entity dispute a notice of alleged violation, proposed penalty or sanction, proposed mitigation plan, or a remedial action directive.

[49] NERC ROP, Appendix 4C§ 5.6.

[50] NERC ROP, Appendix 4C§ 5.7. The NERC appeal process is addressed in §§ 408 and 409 of the ROP.

[51] NERC ROP, Appendix 4C§ 5.9.

[52] NERC ROP, Appendix 4C§ 6.1.

[53] NERC ROP, Appendix 4C§ 6.2.

[54] NERC ROP, Appendix 4C§ 6.4.

[55] NERC ROP, Appendix 4C§6.5.

[56] NERC ROP, Appendix 4C§6.3.

[57] NERC ROP, Appendix 4C§6.6.

mitigation plan are the registered entity's action plans to correct the violation(s) and to prevent recurrence.[58]

Not all instances of noncompliance with Reliability Standards require the same type of processing and documentation as described for violations of Reliability Standards. Noncompliance that does not pose a serious or substantial risk to the reliability of the BPS may be resolved through streamlined processes. The Find, Fix, Track and Report and the Compliance Exception processes were developed as alternatives to the above outlined process.[59]

Additionally, the NERC CMEP provides the procedure for the CEA to issue a remedial action directive to a registered entity.[60] A remedial action directive may be issued, when immediately necessary to protect the reliability of the BPS from an imminent threat, to a registered entity the CEA believes is committing or has committed a violation of a Reliability Standard. The remedial action directive may include, but is not limited to, specifying operating or planning criteria, limits or limitations; requiring specific system studies; defining operating practices or guidelines; requiring confirmation of data, practices or procedures through inspection, testing or other methods; requiring specific training for personnel; requiring development of specific operating plans; directing a registered entity to develop and comply with a plan to remediate a violation; imposing increased auditing or additional training requirements; and requiring the registered entity to cease an activity that may constitute a violation of a Reliability Standard.[61]

As a key component of the enforcement of compliance with mandatory Reliability Standards, a violation of a standard can result in the imposition of a financial penalty or other penalty or sanction on the registered entity. NERC has established, and is applying, rules and procedures for determining the amount of financial penalties, or other penalties or sanctions, to be imposed on registered entities for violations of Reliability Standards. These rules and procedures are embodied in the NERC *Sanction Guidelines*, Appendix 4B to the ROP. The *Sanction Guidelines* must be followed by the Regional Entities in the implementation of their CMEPs.[62] Penalties and sanctions must bear a reasonable relation to the seriousness of the violation and take into consideration timely remedial efforts by the registered entity.[63] NERC's rules and procedures

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[58] NERC ROP, Appendix 4C§6.2.

[59] NERC ROP, Appendix 4C § 3A.0.

[60] NERC ROP, Appendix 4C§7.0. A remedial action directive is "[a]n action (other than a [p]enalty or sanction) required by a Compliance Enforcement Authority that (1) is to bring a [r]egistered [e]ntity into compliance with a Reliability Standard or to avoid a Reliability Standard violation, and (2) is immediately necessary to protect the reliability of the Bulk Power System from an imminent or actual threat." CMEP § 1.1.27.

[61] NERC ROP, Appendix 4C § 7.0.

[62] ROP §§ 403.14 and 407.

[63] ROP § 401.7.

for determining appropriate penalties and sanctions for violations of Reliability Standards are discussed in greater detail under criterion 4.[64]

In order to carry out their responsibilities to monitor and enforce compliance with Reliability Standards, NERC and the Regional Entities have developed substantial professional staffs for, and are devoting substantial resources to, their CMEP and Organization Registration Programs. The following table shows the expenses and the numbers of full-time equivalent (FTE) staff budgeted by NERC and each Regional Entity in 2014 and in 2019 for the CMEP and registration program functions.[65]

Regional Entity	**2014 Budgeted FTEs**	2019 Budgeted FTEs
NERC	41.28	22.56
FRCC	19.26	12.18
MRO[66]	21.26	32.35
NPCC	16	17
ReliabilityFirst	43	44
SERC	42.50	34
Texas RE	40	35.75
WECC	58	60

Regional Entity	**2014 Total Funding ($)**	**2019 Total Funding ($)**
NERC	15,891,537	11,878,714
FRCC	4,702,351	4,984,329
MRO[67]	6,697,593	10,763,709
NPCC	8,079,371	8,816,687
ReliabilityFirst	13,584,946	16,163,392
SERC	11,875,409	13,373,347

[64] The ERO has established rules that provide fair and impartial procedures for enforcement of Reliability Standards through the imposition of penalties in accordance with 18 C.F.R. §39.7, including limitations on activities, operations, or other appropriate sanctions or penalties.

[65] *See* 2014 Business Plans and Budgets https://www.nerc.com/gov/bot/FINANCE/Pages/2014RegionalEntityBusinessPlansandBudgets.aspx; https://www.nerc.com/gov/bot/FINANCE/Pages/2019-NERC-Regional-Business-Plans-and-Budget.aspx. *See also* 2019 Business Plans and Budgets https://www.nerc.com/gov/bot/FINANCE/Pages/2019-NERC-Regional-Business-Plans-and-Budget.aspx; https://www.nerc.com/gov/bot/FINANCE/Pages/2019-NERC-Business-Plan-and-Budget.aspx.

[66] The figures for MRO do not include registration as that function is budgeted with Reliability Standards and Certification.

[67] The figures for MRO do not include registration as that function is budgeted with Reliability Standards and Certification.

Texas RE	9,336,233	10,068,946
WECC	14,763,348	14,966,474

B. Criterion 2 - The ERO has established rules that assure its independence of users, owners and operators of the BPS while assuring fair stakeholder representation in the selection of its directors and balanced decision-making in any ERO committee or subordinate organizational structure.

This criterion encompasses three distinct considerations: (i) independence of NERC from users, owners and operators of the BPS; (ii) fair stakeholder representation in the selection of NERC's directors (trustees); and (iii) provision for balanced decision-making in any NERC committee or subordinate organizational structure.

Independence of Users, Owners, and Operators of the BPS

NERC's Bylaws provide that NERC's business and affairs shall be managed by a Board of Trustees.[68] The Bylaws provide that the Board of Trustees shall consist of ten independent trustees plus the President of NERC.[69] The Bylaws define "independent trustee" as follows:

> An independent trustee is a person (i) who is not an officer or employee of the Corporation [i.e., NERC], a member or an officer, director, or employee of a member of the Corporation, or an officer, director, or employee of any entity that would reasonably be perceived as having a direct financial interest in the outcome of board decisions and (ii) who does not have any other relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a trustee. Provided, that upon initial election to the board, an independent trustee shall within ten (10) days terminate any employee, officer, or director position that conflicts with this subparagraph and shall within sixty (60) days terminate any financial interest or other relationship that conflicts with this subparagraph, and prior to such termination shall not participate in discussion of or voting on any matter involving the entity of which the trustee is an employee, officer or director or in which the trustee has the financial interest or other relationship giving rise to the conflict.[70]

[68] NERC Bylaws Article III, §1.

[69] NERC Bylaws Article III, §1. On October 14, 2009, the Commission approved in a letter order, in Docket No. RR09-8-000, new §§1a and 1b that allows the Board of Trustees to exercise the authority to increase the number of trustees from eleven to twelve, and decrease from twelve to eleven, respectively.

[70] NERC Bylaws Article III, §3a. The last sentence of §3a, providing for brief time periods for a newly-elected trustee to terminate any employment, officer or director position or financial interest or other relationship that would prevent the trustee from being independent, is a 2008 amendment to the Bylaws that was approved by the Commission by a letter order issued October 7, 2008 in Docket No. RR08-5-000.

In the *ERO Certification Order*, the Commission found that the NERC Bylaws definition of "independent trustee" was sufficient to provide for independence from users, owners and operators of the BPS, subject to one clarification.[71]

Thus, a NERC trustee cannot be an officer, director, or employee of a member of NERC nor of any other entity that would be perceived as having a direct financial interest in the outcome of board decisions, and may not have any other relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a trustee. The "responsibilities of a trustee" include, among other things, voting on: (i) board approval of proposed Reliability Standards;[72] (ii) board approval of the NERC ROP and amendments to the ROP;[73] and (iii) board approval of NERC and Regional Entity budgets.[74] Committees of the NERC Board, such as the BOTCC, are responsible for decisions such as hearing and deciding challenges by a user, owner or operator of the BPS to placement of the entity on the NERC Compliance Registry,[75] hearing and deciding appeals from a Regional Entity hearing body decision on a registered entity's challenge to a notice of alleged violation of a Reliability Standard and/or proposed penalty or sanction,[76] and approving the imposition of penalties or other sanctions for violations of Reliability Standards on registered entities, including by settlements.

In addition, the NERC *Conflict of Interest and Business Ethics Policy for Trustees, Officers and Employees* specifies that NERC Representatives "shall avoid and refrain from involvement in or situations where there is actually a conflict of interest (Conflict). A Conflict arises where the NERC Representative's personal financial interest is significantly affected or may reasonably appear to be significantly affected by his or her actions or decisions in his or her capacity at NERC." NERC's *Process for Reviewing Conflicts of Interes*t outlines how potential conflicts of interest of the independent trustees, officers and employees are evaluated beginning in December

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[71] *ERO Certification Order*, 116 FERC ¶61,062 at P 42. The clarification is that the definition prohibits an independent trustee from having a relationship that would interfere with his or her exercise of independent judgment in carrying out the responsibilities of a trustee, regardless of whether he or she is an officer, director, or employee of an entity with an interest in the outcome of NERC Board of Trustees decisions. NERC confirmed this clarification in a compliance filing dated September 18, 2006, and made a modification, consistent with the clarification, to the definition of "independent trustee" in its Bylaws. *Compliance Filing of the North American Electric Reliability Council and the North American Electric Reliability Corporation Addressing Governance Issues and Request for Expedited Treatment*, Docket No. RR06-1, filed September 18, 2006 (*NERC ERO Governance Compliance Filing*) at 3-4.

[72] NERC Bylaws Article IX, §1; ROP §308.2.

[73] NERC Bylaws Article XI, §2; ROP §1402.

[74] NERC Bylaws Article XIII, §§2, 3, 4, and 5; ROP §1101. Each of the matters just listed, upon being approved by the NERC Board of Trustees, must then be submitted to the Commission for approval or confirmation. Sections 215(d) and (f) of the FPA and 18 C.F.R. §§39.4(b), (c), and (d), and 39.5.

[75] ROP §501.1.3.

[76] ROP §409.

of each calendar year.[77] The *NERC Employee Code of Conduct* mandates an "employee's faithful pursuit of the interests of NERC rather than his or her own financial or other interests of another person or organization." Finally, NERC's *Policy on Reporting Complaints Regarding Accounting and Code of Conduct Matters* prohibits retaliation against any NERC employee who lodges a code of conduct complaint about fraud, unethical business conduct, questionable accounting, problems with internal accounting controls, financial reporting or auditing, violations of NERC's codes of conduct for trustees and employees, or violations of law occurring within NERC.

Fair Stakeholder Representation in the Selection of NERC's Trustees

NERC's Bylaws provide for fair stakeholder representation in the selection of NERC's trustees. Candidates for election as a trustee are selected by a nominating committee. The nominating committee is appointed annually (or more frequently if needed in the event of a special election to fill a board vacancy) by the board. The nominating committee is to consist of those independent trustees whose terms do not expire during the current year and such number of other persons with such qualifications as the board shall specify, including at least three members of the NERC Member Representatives Committee (MRC).[78] The procedures to be followed by the nominating committee must include a means of permitting members of NERC to recommend to the nominating committee candidates for consideration as nominees for independent trustees.[79] NERC's Bylaws specify that the nominating committee "shall also endeavor to nominate candidates for election to the board consistent with the objectives that the board as an entity reflects expertise in the areas of technical electric operations and reliability, legal, market, financial, and regulatory matters, and familiarity with regional system operations issues; and reflects geographic diversity."[80]

NERC's Bylaws provide that the independent trustees shall be elected by the NERC MRC, from nominees proposed by the nominating committee. To be elected an independent trustee, a nominee must receive the affirmative vote of two-thirds of the members of the MRC.[81] The MRC

[77] On February 6, 2014, the NERC Board of Trustees approved *Governance Guidelines*, which consolidated NERC's (i) *Conflict of Interest and Business Ethics Policy for Trustees, Officers and Employees* and (ii) *Process for Reviewing Conflicts of Interest* into a single cohesive document.

[78] NERC Bylaws Article III, §5.

[79] NERC Bylaws Article III, §5.

[80] NERC Bylaws Article III, §5.

[81] NERC Bylaws Article III, §6. The NERC Bylaws also require that the number of trustees from Canada shall not be less than the percentage of the net energy for load (NEL) of Canada to the total NEL of the United States and Canada, times eleven (or twelve if the number of trustees has been increased to twelve pursuant to NERC Bylaws Article III, §1a), rounded up to the nearest whole number, with the management trustee (i.e., the president of NERC) counted as a trustee from Canada if he or she is a Canadian citizen. NERC Bylaws Article III, §2a. In the *ERO Certification Order*, the Commission approved this provision as "adequately provid[ing] for an international ERO," stating that "appropriate country representation helps to ensure that the ERO is truly international in addressing Bulk-Power System reliability and considering the concerns of stakeholders in each of the three countries." *ERO Certification Order* at P 47.

is comprised of representatives from the various sectors of the NERC membership.[82] As specified by Article II, §4 of the NERC Bylaws, the sectors of the NERC membership are: (i) investor-owned utilities; (ii) state/municipal utilities; (iii) cooperative utilities; (iv) federal or provincial utilities/federal power marketing administrations; (v) transmission-dependent utilities; (vi) merchant electricity generators; (vii) electricity marketers; (viii) large end-use electricity customers; (ix) small end-use electricity customers; (x) independent system operators/regional transmission organizations; (xi) regional entities; and (xii) government representatives.[83] The composition of the MRC, as specified in Article VIII, §2 of the NERC Bylaws, is as follows:

(1) Two representatives from each sector except the government representative sector and the regional entity sector;

(2) Two voting representatives from the regional entity sector, with the remaining members of that sector being non-voting members of the MRC;[84]

(3) The chairman and vice chairman of the MRC;[85]

(4) Any additional Canadian representatives as are selected pursuant to Article VIII, §4 of the Bylaws;[86] and

[82] Membership in NERC is voluntary and is open to any person or entity that has an interest in the reliable operation of the North American BPS, registers as a member, and complies with the other conditions and obligations of membership specified in the NERC Bylaws (which do not include payment of any membership or initiation dues or fees). NERC Bylaws Article II, §1. In the *ERO Certification Order*, the Commission stated the availability of membership to any person or entity with an interest in the reliable operation of the North American BPS created an open membership structure that is consistent with the statutory requirement that the ERO establish rules that assure fair stakeholder representation. *ERO Certification Order* at P 54. Each member is assigned to one of the 12 membership sectors of NERC. NERC Bylaws Article II, §4.

[83] Article II, §4a of the NERC Bylaws specifies the types of persons or organizations that would be included in each of the membership sectors.

[84] The representation of Regional Entities in the MRC reflects changes made by NERC to the originally-proposed composition of the MRC in response to concerns expressed by the Commission in P 75 of the *ERO Certification Order*. *See NERC ERO Governance Compliance Filing* at 6-9. The Commission accepted these changes in an Order issued October 30, 2006. The Commission also accepted the overall structure and composition of the MRC in that Order. *North American Electric Reliability Corporation, Order on Petitions for Rehearing and Clarification; Order on Compliance Filing*, 117 FERC ¶ 61,126 (2006), at PP 30 and 44.

[85] The chairman and vice chairman of the MRC are selected annually by majority vote of the members of the MRC, and may not be from the same membership sector. Upon being selected as chairman and vice chairman, these individuals cease to be representatives of the MRC sectors to which they were originally elected, and are thereafter responsible to act in the best interests of the members of NERC as a whole. NERC Bylaws Article VIII, §5.

[86] Article VIII, §4 of the Bylaws contains provisions for the election of additional Canadian members to the MRC as and when necessary to ensure that the percentage of Canadian members on the MRC is approximately equal to the percentage the NEL of Canada is of the total NEL of the United States and Canada. See page 24 below for the definition of NEL.

(5) The following representatives of the government representatives sector: two representatives of the United States federal government, one representative of the Canadian federal government, two representatives of state governments, and one representative of a provincial government, all of whom shall be nonvoting members of the MRC except the two representatives of state governments.

The MRC is therefore comprised of 26 voting members when at full complement (or more if the election of additional Canadian members has been necessary in accordance with Article VIII, §4 of the Bylaws). The members of the MRC from each sector are nominated from, and elected by, the NERC members in that sector pursuant to the processes specified in Article VIII, §3 of the NERC Bylaws, which generally call for election of the two candidates from each sector receiving the highest numbers of votes in the sector. The members of the MRC are elected annually (or between annual elections if needed to fill a vacancy).[87]

In summary, NERC's trustees are nominated by a nominating committee comprised of independent trustees whose terms are not expiring, members of the MRC, and possibly others. NERC's trustees are elected by a two-thirds vote of the MRC, which is a committee established pursuant to the Bylaws to fairly represent the sectors of NERC's membership and is open to any person or entity with an interest in reliable operation of the North American BPS. Thus, the NERC Bylaws provide for fair stakeholder representation in the selection of NERC's trustees.

Balanced Decision-Making in any NERC Committee or Subordinate Organizational Structure

NERC's Bylaws authorize the Board of Trustees to create standing committees of NERC and such other committees as the Board deems necessary to carry out the purposes of NERC:

> In addition to those committees specified by these Bylaws, to which the board shall appoint members in accordance with the requirements of these Bylaws, the board may by resolution create standing committees of the Corporation; and may in addition by resolution appoint such other committees as the board deems necessary to carry out the purposes of the Corporation. *The board shall appoint standing committees and other committees of the Corporation that are representative of members, other interested parties and the public, that provide for balanced decision making, and that include persons with outstanding technical knowledge and experience. All appointments of committees of the Corporation shall provide the opportunity for an equitable number of members from the United States and Canada (and from Mexico after the Corporation receives recognition by appropriate governmental authorities in Mexico as its electric reliability organization) to be appointed to each committee in approximate proportion to each country's percentage of the total NEL.* All committees shall have such scope and duties, not inconsistent with law, as are specified in these Bylaws and the Rules of

[87] NERC Bylaws Article VIII, §3.

> Procedure of the Corporation or otherwise determined by the board. (Emphasis added.)[88]

Section 1300 of the NERC ROP provides additional criteria for the creation and appointment of NERC standing committees. In creating a standing committee, the NERC Board of Trustees must approve the charter of the committee and assign specific authority to each committee necessary to conduct business within its charter.[89] Each committee shall have a defined membership composition that is explained in its charter. The specified committee membership composition can provide for balanced decision-making (i) by providing for representatives from each sector of the NERC membership, or (ii) where sector-based membership will not bring together the necessary diversity of opinions, technical knowledge and experience in a particular subject area, by bringing together a wide diversity of opinions from industry experts with outstanding technical knowledge and experience in a particular subject area.[90] Committee membership shall also provide the opportunity for an equitable number of members from the United States and Canada, based approximately on proportionate NEL.[91]

The NERC ROP require that committee members shall be selected in a manner that is open, inclusive, and fair.[92] Unless otherwise stated in the NERC ROP or approved by the NERC Board of Trustees, all committee member appointments are to be approved by the board, and committee officers are to be appointed by the Chairman of the Board.[93]

Further, the NERC ROP require that all NERC committees and other subgroups (except for those organized on other than a sector basis because sector representation will not bring together the necessary diversity of opinions, technical knowledge, and experience in a particular subject area) must ensure that no two stakeholder sectors are able to control the vote on any matter,

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[88] NERC Bylaws Article VII, §1. "Committees specified by these Bylaws" include the MRC and the Nominating Committee for the NERC Board of Trustees (discussed above under "fair stakeholder representation in the selection of NERC's trustees"), and the Personnel Certification Governance Committee (PGCC) provided for in Article XII of the Bylaws. The purpose of the PGCC is to provide oversight to the policies and processes used to implement and maintain the integrity and independence of the NERC System Operator Certification Program. NERC Bylaws Article XII, §1. The members of the PGCC are appointed by the Board from candidates nominated by a nominating task force; nominations and appointments are to take into account the need to include representatives of all geographic regions of North America on the PGCC. *Id*., Article XII, §2. In addition to the aforementioned committees, NERC standing committees include the Standards Committee, Compliance and Certification Committee, Critical Infrastructure Protection Committee, Operating Committee, Planning Committee, and the Reliability Issues Steering Committee.

[89] ROP §1301.

[90] ROP §1302.

[91] ROP §1302.

[92] ROP §1303.

[93] ROP §1303.

and no single sector is able to defeat a matter.[94] Any committees and subgroups organized on other than a membership-sector basis must be reported to the NERC Board of Trustees and the MRC, along with the reason for constituting the committee or subgroup in the manner chosen. The ROP provide that for any committee or subgroup organized on other than a membership-sector basis, a reasonable opportunity for additional participation (as members or observers) shall be provided for sectors not represented on the committee or subgroup (subject to any reasonable restrictions as may be necessary to accomplish the mission of the committee or subgroup).[95] Additionally, a reasonable opportunity must be provided for membership from sectors desiring to participate in any committees and subgroups pertaining to development of, interpretation of, or compliance with Reliability Standards.[96]

The NERC ROP provide that NERC standing committees may appoint subgroups using the same principles as specified in §1302 of the ROP (summarized in the immediately preceding paragraph).[97]

The provisions of §§1301 and 1302 of the NERC ROP regarding committee composition reflect revisions to these provisions that were approved or directed by the Commission in its October 30, 2006 order on the *NERC ERO Governance Compliance Filing*.[98]

The requirement for balanced decision-making is also applicable to the Reliability Standards development process, and is discussed below under criterion 5, "The ERO has established rules that provide reasonable notice and opportunity for public comment, due process, openness and balance of interests in developing Reliability Standards, and otherwise exercising its duties."

C. Criterion 3 - The ERO has established rules that allocate equitably reasonable dues, fees and charges among end users for all statutory activities.

NERC's Bylaws require that the funding mechanism used to recover its net annual budget requirement (i.e., net of fees and other revenues received by NERC from users and purchasers of NERC products and services, and net of prior-period funding surplus or deficiency) "shall consist of such assessments as determined by the [NERC] board that result in an equitable allocation of the Corporation's funding requirement among end users of the North American electric utility system as established in the Corporation's Rules of Procedure."[99] Section 1102 of the NERC ROP,

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[94] ROP §1302.

[95] ROP §1302.

[96] ROP §1302.

[97] ROP §1305.

[98] *See North American Electric Reliability Corporation, Order on Petitions for Rehearing and Clarification; Order on Compliance Filing*, 117 FERC ¶ 61,126 (2006), at PP 75-87.

[99] NERC Bylaws Article XIII, §3. NERC charges users/purchasers of some of its products and services directly for the products and services, at prices that cover some or all of the cost of providing the product or service. Examples include charges to purchasers of data sets from the Generating Availability Data System, charges to candidates for

"NERC Funding and Cost Allocation," prescribes the allocation methods to be used to recover NERC's funding requirements among regions of the United States and among countries in the North American BPS. Section 1102 specifies that NEL shall be used to allocate funding requirements among interconnections and Regional Entities except in those instances in which direct assignment of costs to a particular interconnection, Regional Entity, or group of entities is appropriate; however, in the case of direct assignment, NEL must be used to allocate the directly-assigned costs within the interconnection, Regional Entity, or group of entities:

> (1) In order that NERC's costs shall be fairly allocated among Interconnections and among Regional Entities, the NERC funding mechanism for all statutory functions shall be based on NEL.
>
> (2) NERC's costs shall be allocated so that all load (or, in the case of costs for an Interconnection or Regional Entity, all load within that Interconnection or Regional Entity) bears an equitable share of such costs based on NEL.
>
> (3) Costs shall be equitably allocated between countries or Regional Entities thereof for which NERC has been designated or recognized as the Electric Reliability Organization.
>
> (4) Costs incurred to accomplish the statutory functions for one Interconnection, Regional Entity, or group of entities will be directly assigned to that Interconnection, Regional Entity, or group of entities provided that such costs are allocated equitably to end-users based on NEL.

The NERC ROP define NEL as:

> [N]et generation of an electric system plus energy received from others less energy delivered to others through interchange. It includes system losses but excludes energy required for the storage of energy at energy storage facilities.[100]

In business plan and budget filings with the Commission, actual assessments for Canadian and Mexican entities vary after taking into account polices regarding the allocation of certain compliance and enforcement costs.

D. Criterion 4 - The ERO has established rules that provide fair and impartial procedures for enforcement of Reliability Standards through the imposition of penalties in accordance with 18 C.F.R. §39.7, including limitations on activities, operations, or other appropriate sanctions or penalties.

NERC has established rules that provide fair and impartial procedures for monitoring and enforcement of compliance with Reliability Standards. These rules and procedures are embodied

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certification as NERC-certified operators for examinations and for renewal of credentials, and charges to continuing education providers for certification of their education programs.

[100] ROP Appendix 2.

primarily in §400 of the NERC ROP, the NERC CMEP (Appendix 4C to the ROP), and individual Regional Entity CMEPs (which conform generally to the NERC CMEP), all of which have been approved by the Commission. These rules and procedures were discussed in detail above under criterion 1, relating to the ERO's ability to develop and enforce Reliability Standards that provide for an adequate level of reliability of the BPS. As discussed above under criterion 1, §400 of the ROP, and the NERC uniform CMEP, include provisions for avoidance of conflicts of interest on the part of the CEA personnel conducting compliance monitoring processes, provisions for notice to registered entities and opportunity to respond to compliance monitoring processes, and provisions allowing registered entities to engage in settlement discussions with the CEA concerning notices of alleged violations, proposed penalties or sanctions, and mitigation plans.

Each Regional Entity shall adopt either the Regional Entity Hearing Process (Section ROP §403.15A) or the Consolidated Hearing Process (ROP §403.15B) and conduct all hearings pursuant to the selected process. In either case, the selected hearing process shall be a fair, independent, and nondiscriminatory process for hearing contested violations and any Penalties or sanctions levied, in conformance with Attachment 2 (*Hearing Procedures*) to Appendix 4C to the NERC ROP. Attachment 2 contains detailed due process procedures for the conduct of hearings before the CEA hearing body, when requested by the registered entity, concerning a disputed notice of alleged violation and/or proposed penalty or sanction, disputed mitigation plan provisions, or disputed remedial action directive. The *Hearing Procedures*, which were initially approved by the Commission in two orders, subject to various specific compliance requirements,[101] are based on, and in most respects are quite similar to, the Commission's Rules of Practice and Procedure[102] and to the rules of practice and procedure used by many state public utility commissions.

In 2013, the Regional Entity representatives to the ERO Legal Group developed *Hearing Body Manual – Guidance for Conducting Hearings at the Regional Entities* (Hearing Body Manual) to provide practical guidance to hearing body members at the Regional Entities regarding the hearing process. The Hearing Body Manual outlines the specific duties of the hearing officer and the hearing body and discusses the standard of review that should govern the hearing body's consideration of the hearing officer's decisions throughout the hearing process. The particulars of the hearing process, including the roles of the hearing officer and the hearing body, are set forth in Attachment 2 to Appendix 4C. To the extent that there is a conflict between the Hearing Body Manual and Appendix 4C, the latter prevails.

The remainder of this discussion of NERC's compliance with criterion 4 addresses NERC's rules and procedures for the determination and imposition of penalties for violations of Reliability Standards.

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[101] *Order Addressing Revised Delegation Agreements*, 122 FERC ¶61,245 (2008); *Order Accepting Compliance Filings, Subject to Conditions*, 125 FERC ¶61,330 (2008).

[102] 18 C.F.R. Part 385.

Section 215(e)(6) of the FPA, and §39.7(g) of the Commission's regulations,[103] requires that any penalty imposed for violation of a Reliability Standard shall (a) bear a reasonable relation to the seriousness of the violation; and (b) take into consideration the efforts of the user, owner or operator to remedy the violation in a timely manner.[104] This fundamental requirement is embodied in §401.7 of the NERC ROP and in §3.8 of the NERC *Sanction Guidelines*, Appendix 4B to the ROP. Section 39.7(c) of the Commission's regulations[105] requires that NERC or a Regional Entity may, after notice and opportunity for hearing, impose a penalty on a user, owner or operator of the BPS for a violation of a Reliability Standard if NERC files a notice of penalty and record of the proceedings with the Commission and serves a copy on the user, owner or operator. The notice of penalty must contain: (i) the name of the entity on whom the penalty is imposed; (ii) identification of each Reliability Standard violated; (iii) findings of fact with respect to any act or practice resulting in violation of the standard; (iv) a description of the penalty imposed; (v) the record of the proceeding; and (vi) any other matters NERC or the Regional Entity may find relevant.[106] The penalty may not take effect earlier than the 31st day after NERC files the notice of penalty and record of proceeding with the Commission,[107] and it is subject to review by the Commission on its own motion or on application of the user, owner or operator.[108] Section 5.9 of Appendix 4C provides for the filing of a notice of penalty with the Commission, and for a 30-day period to run before the penalty becomes effective, in accordance with 18 C.F.R. §39.7(d) through (e).[109]

Section 39.7(g) of the Commission's regulations[110] requires the ERO to submit for Commission approval penalty guidelines that set forth a range of penalties for violations of Reliability Standards, and specifies that a penalty imposed by the ERO or a Regional Entity must be within the range set forth in the penalty guidelines. The NERC *Sanction Guidelines* comprise the penalty guidelines established by NERC, which the Commission has approved pursuant to §39.7(g).

Under the *Sanction Guidelines*, penalties are to be commensurate to the reliability impact of the violation and to those levied for similar violations, while still reflecting unique facts and

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[103] 18 C.F.R. §39.7(g).

[104] 18 C.F.R. §39.7(g)(1) also specifies that a penalty may be monetary or non-monetary, and may include, but is not limited to, a limitation on an activity, function, operation, or other appropriate sanction, including being added to a reliability watch list composed of major violators that is established by the ERO, a Regional Entity or the Commission.

[105] 18 C.F.R. §39.7(c).

[106] 18 C.F.R. §39.7(d).

[107] 18 C.F.R. §39.7(e).

[108] 18 C.F.R. §39.7(e).

[109] Certain instances of noncompliance with the Reliability Standards may be resolved outside of the notice of penalty process set forth in the NERC CMEP. *See* NERC ROP, Appendix 4C, §§ 3A.0, 5.2A.

[110] 18 C.F.R. §39.7(g)(2).

circumstances related to the violation or the violator. NERC is charged with ensuring "acceptable similarity" in penalties for comparable violations.[111]

Significantly, however, the *Sanction Guidelines* also state, "Any provisions within a settlement regarding Penalties or sanctions can supersede any corresponding Penalties or sanctions that would otherwise be determined pursuant to these Sanction Guidelines."[112] As such, the negotiation of settlements and determination of penalties involve compromise and the weighing of multiple considerations to arrive at a penalty agreeable to the Regional Entity and the registered entity. Even with this available flexibility, NERC still evaluates the facts and circumstances of every violation that is part of a settlement to ensure that the penalty for that violation, and for the group of violations in the settlement, is within a range of reasonableness that displays consistency.

When evaluating every violation, NERC starts with a base penalty amount that is provided by the VRF/VSL matrix. If the registered entity has a previous violation of a same or similar Reliability Standard Requirement, then the penalty may be aggravated.[113] NERC next considers the violation time horizon for the violation, with multipliers applied to the penalty based on the effect on operations. The highest multiplier applies to real-time operations, while long-term planning is on the opposite end of the spectrum. The registered entity's ability to impact reliability determines the next multiplier, with small facilities or entities having their penalty reduced by a significant amount. A multiplier can be applied based on the condition of the BPS at the time of the violation, with aggravation for a violation occurring during stressed conditions.[114] Among the mitigating factors in penalty determination are the quality of the registered entity's internal compliance program, the degree of the registered entity's cooperation in resolution of the violation, and whether the registered entity self-reported the violation.[115]

NERC will aggregate the results of the violation-by-violation analysis for comparison with the penalty included in the settlement submitted by the Regional Entity. NERC also evaluates how the penalty for the violations in the instant settlement compares to penalties for similar violations included in settlements that have already been approved by NERC and subject to review by the Commission. The evaluation of settlements provides an evolving store of knowledge to use when considering new settlements submitted to NERC. In the end, if the penalty included in the settlement falls within a range of reasonableness for penalties associated with violations involving similar reliability risks, similar entities, and similar facts and circumstances, then the penalty is deemed consistent enough for approval by NERC.

E. Criterion 5 - The ERO has established rules that provide reasonable notice and opportunity for public comment, due process, openness, and balance of

[111] *Sanction Guidelines* §1.

[112] *Sanction Guidelines* §2.1.

[113] *Sanction Guidelines* §§3.1 and 3.2.

[114] *Sanction Guidelines* §2.7; *see also* §3.2.

[115] *Sanction Guidelines* §3.3.

interests in developing Reliability Standards, and otherwise exercising its duties.

NERC has established rules that provide for reasonable notice and opportunity for public comment, due process, openness, and balance of interests in developing Reliability Standards, and otherwise exercising its duties. With respect to the development of Reliability Standards, NERC's Bylaws require that:

> The Corporation shall develop Reliability Standards pursuant to procedures and processes that shall be specified in the Rules of Procedure of the Corporation. The Rules of Procedure shall provide for the development of Reliability Standards through an open, transparent, and public process that provides for reasonable notice and opportunity for public comment, due process, and balancing of interests and is designed to result in Reliability Standards that are technically sound. Participation in the process for developing Reliability Standards shall not be limited to members of the Corporation but rather shall be open to all persons and entities with an interest in the reliable operation of the BPS.[116]

NERC's process for developing and modifying Reliability Standards, which the Commission accepted as meeting the criteria for certifying NERC as the ERO pursuant to §215 of the FPA and §39.3(b) of the Commission's regulations,[117] is embodied in §300 of the NERC ROP and the SPM, Appendix 3A to the ROP. Section 304 of the ROP states that NERC shall develop Reliability Standards in accordance with the NERC SPM. The SPM sets forth the detailed process steps for development and approval of a new Reliability Standards or revision to a Reliability Standard.

Section 304 of the NERC ROP sets forth NERC's "Essential Principles for the Development of Reliability Standards," which include openness, transparency, consensus-building, fair balance of interests, due process, and timeliness:

1. **Openness** — Participation shall be open to all persons who are directly and materially affected by the reliability of the North American BPS. There shall be no undue financial barriers to participation. Participation shall not be conditional upon membership in NERC or any other organization, and shall not be unreasonably restricted on the basis of technical qualifications or other such requirements.

2. **Transparency** — The process shall be transparent to the public.

3. **Consensus-building** — The process shall build and document consensus for each standard, both with regard to the need and justification for the Reliability Standard and the content of the Reliability Standard.

[116] NERC Bylaws Article IX, §2.

[117] *ERO Certification Order*, 116 FERC ¶61,062, at PP 239, 241, 250.

4. **Fair Balance of Interests** — The process shall fairly balance interests of all stakeholders and shall not be dominated by any two segments as defined in Appendix 3D, *Development of the Registered Ballot Body*, of these Rules of Procedure, and no single segment, individual or organization shall be able to defeat a matter.

5. **Due Process** — Development of Reliability Standards shall provide reasonable notice and opportunity for any Person with a direct and material interest to express views on a proposed Reliability Standard and the basis for those views, and to have that position considered in the development of the Reliability Standards.

6. **Timeliness** — Development of Reliability Standards shall be timely and responsive to new and changing priorities for reliability of the BPS.

Section 305 of the NERC ROP specifies that "NERC Reliability Standards shall be approved by a Registered Ballot Body prior to submittal to the [NERC] Board and then to [a]pplicable [g]overnmental [a]uthorities for their approval," and that "[a]ny person or entity may join the Registered Ballot Body to vote on Reliability Standards." The RBB is organized on an industry segment basis, and persons or organizations joining the RBB must select membership in the appropriate segment (subject to periodic review by NERC).[118] The RBB segments and the criteria for membership in each segment are set forth as follows:[119]

- Segment 1: Transmission Owners
- Segment 2: Regional Transmission Organizations and Independent System Operators
- Segment 3: Load-Serving Entities
- Segment 4: Transmission Dependent Utilities
- Segment 5: Electric Generators
- Segment 6: Electricity Brokers, Aggregators, and Marketers
- Segment 7: Large Electricity End Users

[118] ROP §305.

[119] ROP Appendix 3D at 2-3. The segments of the RBB are different from the NERC membership segments established by Article II, §4 of the NERC Bylaws (discussed above under criterion 2). The Commission approved the use of segments for the RBB that are different from the NERC membership segments. *North American Electric Reliability Corporation, Order on Petitions for Rehearing and Clarification, Order on Compliance Filing*, 117 FERC ¶ 61,126 (2006), at P 30.

- Segment 8: Small Electricity Users
- Segment 9: Federal, State, and Provincial Regulatory or other Government Entities
- Segment 10: Regional Entities

Section 306 of the ROP provides for the standards development process to be overseen by a Standards Committee, which is an elected body comprised of two members of each segment of the RBB and two officers elected to represent the interests of the industry as a whole.[120] The Standards Committee is to ensure stakeholder interests are fairly represented in the Reliability Standards development process. Section 308.2 of the ROP specifies that proposed Reliability Standards or revisions to Reliability Standards shall be submitted to the NERC Board of Trustees for approval after being approved by the RBB pool voting on the standard.

The NERC SPM sets out the detailed steps in the process for developing and approving Reliability Standards or revisions to Reliability Standards. The process is based on the procedures of the ANSI and other standards-setting organizations in the United States and Canada.[121] The standards development process is intended to develop consensus on both the need for and content of a proposed standard.[122] As detailed in the SPM, the process includes the following key elements:

- Nomination of a proposed standard, revision to a standard, or withdrawal of a standard, using a SAR, which may entail appointing a SAR drafting team.[123]
- Public posting of the SAR to allow interested persons and entities to review and comment on the need for the proposed standard and the expected outcomes and impacts from implementing it, and to identify if there is stakeholder consensus on the need, scope and applicability of the standard proposed by the SAR.[124]

[120] Election of the members of the Standards Committee is governed by the *Procedures for Election of Members of the Standards Committee*, Appendix 3B to the ROP.

[121] SPM §§1.4, 10.0, 13.0, and 16.0. ANSI accredited NERC's Reliability Standards development process in 2003.

[122] SPM §§1.4. 3.8, 3.10, and 4.0.

[123] SPM §§4.0, 4.2, and 4.3.

[124] SPM §§4.0, 4.1, and 4.2.

- Review of the public comments in response to the SAR and prioritization of proposed standards, leading to authorization to develop standards for which there is a stakeholder consensus-based need.[125]

- Appointment of a standard drafting team to draft the new or revised standard. The appointed standard drafting team is to have the expertise, competencies and diversity of views needed to develop the standard. The appointment process includes a public solicitation for nominees.[126]

- Drafting the new or revised standard. The standard will be drafted by the standard drafting team with the assistance and administrative support of the NERC standards process manager (a NERC professional staff member), who will review the draft standard for consistency of quality and completeness and to ensure the standard is within the scope and purpose identified in the SAR.[127]

- Public posting of the draft standard to allow interested parties to review and comment on it, to receive specific comments from interested parties on the text of the standard, to assess stakeholder consensus on the draft standard, and to determine if the draft standard should be modified to increase consensus.[128]

- Field testing (if any) of the draft standard and its measures.[129]

- Analysis of public comments and field test results (if any) by the standard drafting team, giving consideration to the written views and objections of all participants, to determine if there is consensus the proposed standard should go to ballot, or requires further work.[130]

- Balloting of the standard by the industry stakeholder ballot pool formed from the RBB for purposes of balloting the new or revised standard.[131] (The voting process is described below.)

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[125] SPM §§4.0, 4.1, 4.2, and 4.3.

[126] SPM §§4.0, 4.3, and 4.4.

[127] SPM §§4.0 and 4.4.

[128] SPM §§4.0, 4.5, and 4.7.

[129] SPM §§4.0 and 6.0.

[130] SPM §§4.0, 4.5, 4.6, 4.7, 4.12, and 6.0.

[131] SPM §§4.0, 4.7, 4.8, and 4.9.

- Re-balloting of the standard to consider specific comments by those submitting negative votes with comments.[132]

- Vote by the NERC Board of Trustees to approve or reject the standard that has been approved by the ballot pool. The NERC Board of Trustees may adopt or reject a Reliability Standard that has been approved by the ballot pool, but may not modify the standard; however, if the NERC Board of Trustees chooses not to adopt a proposed standard, the board shall provide its reasons.[133]

- Submission of the RBB-approved and board-approved Reliability Standard to the Commission and other applicable governmental authorities for approval.[134]

As provided in the SPM, voting on a proposed Reliability Standard or revision to a standard is done by the RBB ballot pool formed for that standard, and is tallied on a weighted segment basis. At least 30 days prior to the start of a ballot, the NERC standards process manager issues a notice to the entities in the RBB advising them of the upcoming ballot on the new or revised standard, so that entities may elect to join the ballot pool for balloting the standard. Any member of the RBB may join (or leave) the ballot pool for the standard until the ballot period begins.[135] The balloting is conducted electronically with voting allowed during a specified ballot period, typically 10 days.[136] Approval of a proposed standard or revision to a standard requires both (i) a quorum, which is established by at least 75 percent of the members of the ballot pool submitting a response with an affirmative vote, a negative vote, or an abstention,[137] and (ii) affirmative votes by a two-thirds majority of the weighted segment votes.[138] The calculation of the weighted segment voting results is described in detail in the SPM.[139]

The foregoing demonstrates that NERC's rules provide reasonable notice and opportunity for public comment, due process, openness, and balance of interests in the development of

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[132] SPM §§4.0, 4.13, and 4.14. Voters on the first ballot are allowed to submit comments with affirmative ballots and reasons for their votes with negative ballots (although inclusion of a statement of reasons with a negative ballot is not required).

[133] SPM §§4.0, 4.15, and 4.16.

[134] SPM §§4.0, 4.16, and 4.17.

[135] SPM §4.8.

[136] SPM §§4.0 and 4.9.

[137] SPM §4.10.

[138] SPM §§4.10 and 4.11. For this purpose the number of votes cast is the sum of the affirmative and negative votes cast by the ballot pool, excluding abstentions, non-responses and negative votes without comments.

[139] SPM §§4.10 and 4.11.

Reliability Standards. In finding that NERC met the statutory and regulatory criteria to be certified as the ERO, the Commission found NERC's Reliability Standards development process met the ERO certification requirement that the ERO candidate have rules providing for reasonable notice and opportunity for public comment, due process, openness, and balancing of interests in developing Reliability Standards.[140]

Other NERC rules provide for reasonable notice and opportunity for public comment, due process, openness, and balance of interests in the exercise of NERC's duties other than developing Reliability Standards. As discussed under criterion 2 above, NERC's Bylaws provide for its trustees to be elected by the MRC, which (again per the NERC Bylaws) is comprised of representatives of the sectors of the NERC membership as defined in the Bylaws. The Bylaws also provide that amendments to the Bylaws must be adopted by majority vote of both the Board of Trustees and the MRC, conducted after at least 10 days and no more than 60 days' notice of the vote on the proposed amendment. Additionally, the NERC membership may adopt new Bylaws, or alter, amend, or repeal amendments adopted by vote of the board and the MRC, by vote of two-thirds of the sectors voting on the alteration, amendment, repeal or adoption.[141]

The Bylaws further provide that revisions to the NERC ROP may be proposed by: (i) any 50 members of NERC, which must include members from at least three membership sectors; (ii) the MRC; (iii) a committee of NERC to whose function and purpose the ROP to be amended pertains; or (iv) an officer of NERC. A proposed revision to the NERC ROP must be posted on the NERC website for public comment for a minimum of 45 days prior to the NERC Board of Trustees vote on the proposed revision.[142]

The NERC Bylaws require that notice of meetings of the NERC Board of Trustees and of the MRC, and notice of calls for action without a meeting by the board or the MRC, along with all non-confidential materials to be considered by the board or MRC at a meeting or in an action without a meeting, shall be posted on the NERC website at least 24 hours prior to the meeting or within 24 hours after the call for action without a meeting.[143] The ROP provide that notice of meetings of NERC committees, and all non-confidential materials relating to the meeting, shall be posted on the NERC website at approximately the same time(s) the notice and materials are provided to the committee members.[144] Additionally, the Bylaws require that, except for discussions of certain specified non-public topics, meetings of the NERC Board of Trustees and of the MRC shall be open to the public (subject to reasonable space limitations).[145] Similarly, the

[140] *ERO Certification Order* at P 250.

[141] NERC Bylaws Article XIV, §1.

[142] NERC Bylaws Article XI, §2.

[143] NERC Bylaws Article V, §§4 and 6; Article VIII, §§10 and 12.

[144] ROP §1304.1.

[145] NERC Bylaws Article V, §4; Article VIII, §10.

NERC ROP require that, except for discussions of certain specified non-public topics, meetings of NERC standing committees shall be open to the public (subject to reasonable space limitations).[146]

The NERC Bylaws also create an exception to the five day prior notice requirement for Board of Trustee meetings.[147] NERC allows a 24 hour prior notice for special board meetings that are held in closed session. This does not affect the need to provide notice to the public and to members of any meetings, whether closed or open, 24 hours after notice is given to trustees. The shortened notice period permits the Board to address matters that may be considered in closed session in a more timely way when necessary, while not changing the notice provided to stakeholders of any Board meeting.

With respect to the preparation of NERC's annual business plan and budget, the NERC Bylaws provide that NERC shall post a draft business plan and budget for comment by the NERC membership, the MRC, and the NERC standing committees for at least 30 days prior to the board meeting at which the annual business plan, budget and funding requirement is to be approved for submission to the Commission. The Board shall also consult with the members of the MRC on the proposed business plan and budget before it is adopted.[148] Should a supplemental or modified budget or assessment be considered for adoption during the course of the year, the Bylaws require that the procedures for posting, receipt of comments, and consultation with the MRC shall be followed to the extent possible in the board's judgment in light of the exigency of the circumstances necessitating preparation and approval of the supplemental or modified budget, funding and assessment.[149]

With respect to compliance monitoring and enforcement, as discussed above under **Criteria 1** and **4**, the NERC CMEP and Regional Entity CMEPs, the NERC *Hearing Procedures* (Attachment 2 to the CMEP), and the NERC *Sanction Guidelines*, provide for reasonable notice to and due process for users, owners, and operators of the BPS in the conduct of compliance monitoring and enforcement activities of NERC and the Regional Entities. These activities include the implementation of the compliance monitoring processes, the conduct of hearings on disputed notices of alleged violations, proposed penalties, disputed mitigation plan components and disputed remedial action directives, and the imposition of penalties and sanctions for violations of Reliability Standards.

Finally, as discussed above under criterion 2, the NERC Bylaws and ROP require members to be selected for NERC standing committees and other committees and subgroups so as to (subject to specified exceptions) provide for balanced decision making, such that no two stakeholder sectors can control the voting on the committee and no single stakeholder sector is able to defeat

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[146] ROP §1304.1.

[147] NERC Bylaws Article V, §2.

[148] NERC Bylaws Article XIII, §4; *see also* ROP §1103.1.

[149] NERC Bylaws Article XIII, §5.

a matter; and to provide the opportunity for an equitable number of members from the United States and Canada.

F. Criterion 6 - The ERO has established rules that provide appropriate steps to gain recognition in Canada and Mexico.

To remain certified as the ERO for North America, federal regulations require NERC to take appropriate steps to gain recognition in Canada and Mexico. The efforts of NERC to seek recognition in Canada and Mexico are described below.

Canada

Under the Constitution of Canada, regulation of electricity is primarily within the jurisdiction of each province. Canada does not have a 'FERC-equivalent' with plenary jurisdiction over electricity matters, although the National Energy Board (NEB) does have jurisdiction over international power lines. Accordingly, beginning before its certification as the ERO for the United States and continuing to the present time, NERC has devoted significant efforts to developing relationships with each of the relevant provincial authorities, as well as the NEB. Where possible, NERC has devoted efforts attempting to obtain recognition as the ERO. NERC's progress in this regard is described below.

Alberta

Reliability Standards

The Alberta Electric System Operator (AESO) is the independent system operator, a statutory corporation pursuant to Alberta's *Electric Utilities Act, 2003* (EUA).[150] AESO's statutory mandate requires that it direct the operation of the Alberta interconnected electric system, plan for the future of the transmission system, and operate the wholesale electricity market in the province.

Pursuant to the Alberta *Transmission Regulation* (made pursuant to the EUA),[151] Alberta Reliability Standards include reliability standards[152] enacted by WECC, NERC, or any similar entity that is recognized by the AESO, to the extent that these reliability standards are adopted by the AESO in accordance with the *Transmission Regulation*. The AESO also has the authority under the *Transmission Regulation* to adopt other reliability standards subject to certain process requirements.

In order for a reliability standard to be adopted in Alberta, the *Transmission Regulation* requires that the AESO consult with those market participants that it considers likely to be directly

[150] Alberta's EUA is available at: http://www.qp.alberta.ca/documents/Acts/E05P1.pdf.

[151] Alberta's *Transmission Regulation* is available at: http://www.qp.alberta.ca/documents/Regs/2007_086.pdf.

[152] In this context, where not capitalized, the phrase "reliability standards" refers to standards relating to reliability generally, whether or not they were developed or approved by NERC.

affected by one or more reliability standards and make a recommendation to the Alberta Utilities Commission to approve or reject the reliability standards being considered for approval. The Alberta Utilities Commission must follow the AESO's recommendation unless an interested person satisfies the Alberta Utilities Commission that the recommendation of the AESO is either "technically deficient" or "not in the public interest." When the AESO considers NERC Reliability Standards for adoption in Alberta, the AESO is required to determine whether the NERC Reliability Standards can be applied in Alberta, including whether approval would be appropriate for the Alberta electric energy market framework.[153]

The AESO's *Alberta Reliability Standards Program Work Plan* is intended to help manage and track the adoption of NERC Reliability Standards in Alberta. It was last revised in June 2014, and it reflects a risk-based prioritization approach.[154] The Alberta Reliability Standards, as approved, bear the same identifiers as the original NERC Reliability Standards (COM, BAL, FAC, etc.), but have an "AB" added to the name.[155]

An Alberta Reliability Standard may incorporate modifications from the original NERC Reliability Standard to recognize the physical characteristics of the Alberta system or for other reasons.[156]

When presented to the Alberta Utilities Commission by the AESO for approval, a proposed Alberta Reliability Standard will contain an explanation for any proposed modifications, which are not intended to change the intent or substance of the NERC Reliability Standards. Where there have been changes from a NERC Reliability Standard to an Alberta Reliability standard, it is noted in a quarterly update report that is provided to WECC and to NERC.

Effective January 1, 2014, the AESO assumed all responsibilities related to the functions of a Reliability Coordinator. Additional Alberta Reliability Standards will be adopted, and this work is underway.

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[153] Alberta has developed an Alberta Functional Model that integrates with the Alberta regulatory and market framework. The Alberta Functional Model defines entity types that perform functions that impact the reliability of the transmission system. Functional entity types are used to identify if an Alberta Reliability Standard is applicable to that functional type.

[154] The *Alberta Reliability Standards Program Work Plan* can be found at: http://www.aeso.ca/rulesprocedures/25052.html. Alberta Reliability Standards currently in effect and their effective dates are listed on the AESO website at: http://www.aeso.ca/rulesprocedures/17006.html. A number of NERC Reliability Standards have been rejected as not being applicable to entities in Alberta. These are listed at: http://www.aeso.ca/rulesprocedures/16426.html.

[155] An example of a current Alberta Reliability Standard is BAL-001-AB-0a, Real Power Balancing Control Performance.

[156] *See* Project Charter for Alberta Reliability Standards Implementation at p.1, available at: http://www.aeso.ca/downloads/ARS_Project_Charter_2011-12-05_final.pdf.

Data Sharing

Under §8.4 of the WECC/AESO membership and operating agreement (MOA), if WECC determines that the AESO is not in compliance with an Alberta Reliability Standard, WECC must promptly refer the matter to the Market Surveillance Administrator (MSA). Pursuant to the WECC/MSA services agreement, WECC, on behalf of the MSA, will monitor AESO's compliance with Alberta Reliability Standards and report its findings to the MSA.

Sections 2.13, 6.1, and 6.5 of the WECC/MSA services agreement address WECC's ability to report possible violations[157] to NERC. Under §2.13, NERC and FERC are not allowed to participate in or observe WECC's actions taken according to the WECC/MSA services agreement, without the express approval of the MSA. Section 6.1 establishes that all records pertaining to WECC's services will be considered confidential and should be treated as strictly confidential at all times.[158]

Based on its agreement with the MSA, WECC is prohibited from disclosing information related to the AESO's compliance with Alberta Reliability Standards without the permission of the MSA. However, as noted in the NERC/WECC/AESO memorandum of understanding (MOU),[159] disclosing information related to confirmed contraventions would occur as such information is made public by the Alberta Utilities Commission. In addition, as there is value to the North American electric industry of receiving information on lessons learned from such contraventions, the AESO will work with NERC and WECC to provide information on lessons learned as made public by the Commission.

Compliance

The NERC/WECC/AESO MOU commits the AESO to appropriate compliance monitoring and enforcement "in a manner determined in Alberta." With regard to entities (other than the AESO) that are subject to Alberta Reliability Standards, the AESO carries out its mandate to monitor compliance according to a compliance monitoring plan. Matters of noncompliance with an Alberta Reliability Standard must be referred by the AESO to the MSA for consideration and possible action.

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[157] The terms "possible violation," confirmed violation," and "violation" are not defined in Alberta. Rather, Alberta uses the terms "suspected contravention" and "contravention."

[158] Section 6.5 is even more explicit with respect to WECC's authority to share information with NERC and mandates the following:

> WECC further acknowledges that this Agreement clearly stipulates that in no event will Confidential Records received or generated by WECC in respect of the Services or this Agreement be disclosed or made available to persons outside WECC, including to any representative of FERC, NERC or any other person, without the express written approval of the MSA.

[159] MOU between NERC, WECC, and AESO, effective July 15, 2010, at p. 7, available at: http://www.nerc.com/files/NERC-WECC-AESO_MOU_Executed%20Version_071510.pdf.

The Alberta Utilities Commission adopted specified penalties for contraventions of Alberta Reliability Standards effective November 2010. If warranted, the MSA is empowered by §52 of the *Alberta Utilities Commission Act* to issue a notice of specified penalty for contravention of an Alberta Reliability Standard. Specified penalties are defined in AUC Rule 027 and range from $500 to $25,000, depending upon the severity of the contravention and the applicable Alberta Reliability Standard.[160] Specified penalties can be appealed to the Alberta Utilities Commission. Alternatively, the MSA can pursue an administrative penalty before the Alberta Utilities Commission. The maximum administrative penalty amount is $1 million per day on which a contravention occurs or continues.

British Columbia

Reliability Standards

The British Columbia Utilities Commission (BCUC) is an independent, quasi-judicial regulatory agency that operates under and administers the *Utilities Commission Act*.[161] The BCUC adopts or rejects reliability standards in British Columbia and is responsible for the administration of the Mandatory Reliability Standards Program. The British Columbia Hydro and Power Authority (BC Hydro), a provincial crown corporation, is a regulated integrated utility and transmission provider that acts as a balancing authority and applicant for Reliability Standards to the BCUC.

To provide the necessary information required for determinations and in accordance with the *Utilities Commission Act*, BC Hydro submits a *Mandatory Reliability Standard Assessment Report* to the BCUC assessing the new and revised reliability standards adopted in the United States by FERC within the annual assessment period (December 1 to November 30). The purpose of this effort is to examine suitability for application in British Columbia. The assessment report is developed in consultation with Registered Entities in the Mandatory Reliability Standards Program. Further, in consultation with stakeholders regarding the estimated time required for the entities to implement and come into compliance with the reliability standards, BC Hydro suggests effective dates for each of the Reliability Standards assessed. After a public comment process, the BCUC reviews BC Hydro's analysis and then may either approve or reject Reliability Standards. The provincial process can lead to delays before a FERC-approved Reliability Standard is adopted.

In Order G-171-10, issued on November 25, 2010, the BCUC approved an annual Implementation Plan created by WECC for 2011 that includes "a list of minimum [R]eliability [S]tandards to be actively monitored, methods to be used for monitoring, an Audit Plan, Self-Certification Program and Schedule, Periodic Information Submittal requirements and Exception

[160] The specified penalties for contravention of Alberta Reliability Standards are available at: http://www.auc.ab.ca/rule-development/rule-027-specified-penalties-for-reliability-standards/Pages/default.aspx.

[161] The *Utilities Commission Act* is available at: http://www.bclaws.ca/Recon/document/ID/freeside/00_96473_01.

Reporting process."[162] The BCUC has also issued orders approving annual Implementation Plans for subsequent years.[163]

The standards in effect in British Columbia are generally listed in an attachment to the most recent order approving new or amended standards. NERC Reliability Standards and WECC regional Reliability Standards effective in British Columbia are also listed on the WECC website.[164] British Columbia has vested the BCUC with authority to levy monetary penalties for violations. BCUC now has authority to assess fines of up to $1 million per day. The process for imposing penalties for confirmed violations of reliability standards is under development.

In 2018, NERC, BCUC and WECC entered into their first MOU which is intended to supplement and to be read in conjunction with the *Utilities Commission Act*, *Mandatory Reliability Standards Regulation*, and the *Administration Agreement* between BCUC and WECC, dated September 8, 2009, and renewed August 21, 2014, which addresses the development, approval and enforcement of reliability standards applicable to British Columbia.

Data Sharing

WECC's relationship with the BCUC is governed by the *Administration Agreement* between the parties (dated October 8, 2009), the BCUC's *Rules of Procedure for Reliability Standards in British Columbia* (BCUC ROP), and BCUC's compliance monitoring program.[165] Under §3.2 of the *Administration Agreement*, WECC is required to immediately advise the BCUC and an applicable entity who has provided information to WECC if that information has been requested by NERC or a foreign government agency, unless disclosure of the request is prohibited by law. Therefore, WECC can only disclose confidential information related to possible violations if the BCUC approves the disclosure or by compulsion of law.

Under §6.3.1 of the BCUC ROP, the BCUC, in its discretion and upon request, may designate information as restricted.[166] If such designation is made, §3.6 of the *Administration Agreement* and the BCUC ROP prohibit WECC from transmitting the information outside of British Columbia. WECC can review the restricted information only at the offices of the applicable entity or at the BCUC. The applicable entity is not required to give WECC a copy of the restricted documents.

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[162] Order No. G-171-10, issued by the BCUC, at p. 1, available at: http://www.bcuc.com/Documents/Orders/2010/DOC_26511_G-171-10_MRS-2011-Implementation-Plan.pdf.

[163] *See*, e.g., Order No. R-39-13, available at: http://www.bcuc.com/Documents/Orders/2013/DOC_38047_R-39-13_BC-Reliability_2014-Implementation-Plan.pdf (approving the Implementation Plan for the 2014 calendar year).

[164] *See* http://www.wecc.biz/Standards/BCApproved%20Standards/Forms/AllItems.aspx.

[165] *See* Attachments 1 and 2 to Order No. G-123-09, issued by the BCUC, available at: http://www.bcuc.com/Documents/Orders/2009/DOC_23219_G-123-09_BCUC%20MRS.pdf.

[166] *See* http://www.bcuc.com/Documents/MRS/Rules-of-Procedure.pdf.

Under §3.1 of the *Administration Agreement*, WECC shall not disclose such information except as provided in the Rules of Procedure, namely with BCUC approval. Section 3.1.1(ii) also prohibits WECC from disclosing documents or portion of documents that would potentially identify the source of the information. Finally, WECC cannot disclose any information if the BCUC directs WECC to keep it confidential. The MOU does, however, clarify that the signatories of the MOU may share Confidential Information and Non-Public information amongst each other.

Compliance

Under the *Administrative Agreement* with the BCUC, WECC performs compliance oversight for the province, including registration, monitoring and auditing functions and activities. However, the violations, enforcement, and penalty assessment functions remain with BCUC.

Manitoba

Reliability Standards

The *Manitoba Hydro Act* establishes the framework for Manitoba Hydro to adopt NERC Reliability Standards by authorizing Manitoba Hydro, subject to Lieutenant Governor in Council approval, to adopt:

> in whole or in part, any standards, rules, terms, conditions, guidelines or schedules, which are related to the planning, design or operation of generation or transmission facilities within an integrated regional power grid, established by [the North American Electric Reliability Council, Mid-Continent Area Power Pool or…] an industry organization, regional transmission group, regulatory body or other association or group or any other person.[167]

The *Manitoba Hydro Amendment and Public Utilities Board Amendment Act (Electricity Reliability)*[168] and its implementing regulations, which came into force on April 1, 2012, set the basis for the adoption of mandatory and enforceable NERC Reliability Standards in Manitoba. This legislation gives the Public Utilities Board of Manitoba (PUB) the authority to make determinations of noncompliance with Reliability Standards, to impose sanctions, and to remand a standard to NERC for reconsideration. The enforceable standards in Manitoba are listed in Schedule 1 to the *Reliability Standards Regulation*.[169]

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[167] *See The Manitoba Hydro Act*, C.C.S.M. c.H190, s.16.3(1)(a), available at: http://web2.gov.mb.ca/laws/statutes/ccsm/h190e.php. The bracketed language above was stricken in *The Manitoba Hydro Amendment and Public Utilities Board Amendment Ac*t (dated June 11, 2009), and replaced with "an industry organization."

[168] Statutes of Manitoba 2009, c. 17.

[169] Available at: http://web2.gov.mb.ca/laws/regs/annual/2014/098.pdf.

In 2018, Manitoba Hydro, NERC and NPCC entered into an MOU for the limited purpose of Manitoba Hydro and MRO establishing a program for monitoring the compliance of Manitoba entities with reliability standards developed by Manitory Hydro pursuant to *The Manitoba Hydro Act* (C.C.S.M. v. H190).

Compliance

The *Compliance Monitoring and Enforcement Program Province of Manitoba*, based on the NERC CMEP, was adopted as Schedule 2 to the *Reliability Standards Regulation*. MRO and NERC, as compliance bodies, will monitor Manitoba Hydro's compliance with NERC Reliability Standards. If a compliance body alleges that a violation of standards has occurred in Manitoba, it must apply to the PUB with a recommended enforcement action for a determination on whether a standard has been violated. MRO also makes recommendations to PUB regarding the imposition of associated penalties or sanctions. The PUB will decide whether a violation of a standard has taken place and the penalty, if any, which should apply for noncompliance. The PUB can impose a penalty, with enforcement through a board order. When the PUB issues an order confirming a violation, NERC may make this fact and any attached penalties public. A similar process is followed for standards develop by Manitoba; however, audit processes and audit reports for Manitoba-developed standards must be maintained separately from audit processes and audit reports prepared for NERC/MRO Reliability Standards.

NERC or MRO, in advising the PUB that they believe a violation has occurred, is also to advise on appropriate remedial actions, sanctions, or penalties.

Data Sharing

All findings by PUB related to electricity reliability proceedings are made public through the issuance of orders. These orders will include the name of the registered entity, the Reliability Standard(s) and requirements(s) violated, whether the PUB agrees with MRO's findings and recommendations, and any penalties or sanctions imposed.

When the PUB issues an order confirming a violation, NERC may make this fact and any attached penalties public. The mitigation plan will not be made public until there is a confirmed violation. Similarly, final audit reports will be released to the public, but only after any alleged violations have become confirmed violations. Lastly, while compliance investigations are confidential, confirmed violations resulting from a compliance investigation will be made public.

For Manitoba-developed standards, all written or verbal information provided by a monitored entity or about a monitored entity, including MRO's and NERC's working papers and documentation are deemed confidential and may be shared between NERC and MRO.

New Brunswick

Reliability Standards

New Brunswick Power Corporation (NBPC) performs system operation functions. In addition to its responsibility to comply with reliability standards applicable to its function, NBPC is also responsible for making filings to the New Brunswick Energy and Utilities Board (NBEUB) to update Reliability Standards, maintain a list of BPS elements, and to make recommendations on compliance registrations. NBEUB now also adopts, monitors, and enforces FERC-approved NERC Reliability Standards that have been filed by NBPC. NERC Reliability Standards are filed and adopted with an accompanying NB Appendix to describe the specific application of the standard in New Brunswick. The NBEUB posts proposed Reliability Standards on its website for a 60-day review period prior to adoption. If the proposed Reliability Standard contains substantive revisions to the FERC-approved version, or if there are substantive comments received during the review period, the NBEUB may hold a hearing and may determine to approve, not approve, or remand the proposed Reliability Standard back to NBPC. A list of enforceable Reliability Standards is available on the NBEUB's website.[170] This change is reflected in a new MOU executed in 2016 between NBEUB, NPCC and NERC.

Data Sharing

Confidentiality and public disclosure is governed by Part 7 of the *New Brunswick Compliance Monitoring and Enforcement Program* (NB CMEP) – Schedule A to the *Reliability Standards Regulation – Electricity Act*.[171] Any information that a registered entity provides to the NBEUB, NPCC, or NERC may be marked as confidential and may not be released to a third party without the written consent of the registered entity. The regulation provides for the public disclosure of finalized audit reports, confirmed violations, penalties, sanctions, and settlement agreements, including the name of the registered entity. The NBEUB is required to keep all CIP information confidential in accordance with §1500 of the NERC ROP.

Pursuant to the MOU, the parties agree to share Confidential Information and Non-Public Information amongst signatories.

Compliance

The NBEUB implements a compliance monitoring system for reliability standards that is based on the requirements of the NERC compliance program. The NB program is documented as the NB CMEP – Schedule A to the *Reliability Standards Regulation – Electricity Act*. As a recognized compliance body under the regulations, NPCC assists the NBEUB with compliance monitoring activities according to a service agreement the NBEUB has executed with NPCC. The NBEUB will initiate enforcement action if it has reason to believe that a violation of a reliability standard has occurred. NBEUB requires that the entity take action to remove the risk the violation poses to the reliability of the BPS and to implement a plan that will prevent a future occurrence of the violation. Registered entities are subject to financial penalties and sanctions for violations of

[170] *See* http://www.nbeub.ca/index.php/en/electricity/reliability-compliance/118.

[171] New Brunswick's *Reliability Standards Regulation – Electricity Act* is available at: http://laws.gnb.ca/en/ShowPdF/cr/2013-66.pdf.

adopted reliability standards. A penalty matrix, provides ranges for penalties corresponding to VRFs and VSLs, is provided in the *Reliability Standards Regulation*.

Nova Scotia

Reliability Standards

The Nova Scotia Utility and Review Board (NSUARB) is an independent, quasi-judicial body which exercises general supervision over all electric utilities operating as public utilities within the Province of Nova Scotia, pursuant to the *Nova Scotia Public Utilities Act*.[172] Nova Scotia Power Incorporated (NPSI) is a public utility in Nova Scotia and is a member of NERC and NPCC. The Nova Scotia Department of Energy is responsible for energy and electricity policy in the province.

NERC has signed two separate MOUs with entities in Nova Scotia: one with NSUARB, and one with NSPI.[173]

NERC submits standards to NSUARB and NSPI for approval; each organization may approve, modify, remand or dismiss the standard as not applicable, though final approval authority rests with NSUARB. NSUARB has a quarterly review process allowing the submission, by NERC, of standards already approved by FERC. NSUARB will only process an application after FERC has approved or remanded the Reliability Standard in the United States.[174] NERC made an initial filing of Reliability Standards on June 30, 2010 along with the *Glossary of Terms Used in NERC Reliability Standards*. Nova Scotia approved this filing on July 20, 2011. None of the proposed standards were changed or rejected.

On September 2, 2011, NERC made its first quarterly filing to Nova Scotia that included a list of Standards approved by FERC in the period of time since the June 30, 2011 filing. This filing was approved.

In August 2012, the NSUARB began implementing an expedited process for its review of NERC quarterly filings. With respect to the quarterly filing, NSPI and NPCC have 10 days to comment if they wish. At the end of the comment period, the NSUARB will decide if, based on any comments, a more rigorous review is required. If a more rigorous review is deemed required it will be undertaken; otherwise, the NSUARB will issue its decision. To date, all filings have been approved without additional review.

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[172] The *Nova Scotia Public Utilities Act* is available at: http://nslegislature.ca/legc/statutes/public%20utilities.pdf.

[173] The NSUARB and NERC signed an MOU on December 22, 2006, in which NERC and the NSUARB agreed to a cooperative relationship to improve the reliability of the North American BPS. On May 11, 2010, NERC, NPCC, and NSPI signed an MOU which memorializes the working relationship between the three entities to improve reliability of the grid in Nova Scotia and North America. Both MOUs are available at: http://www.nerc.com/filingsorders/ca/pages/canadian-mous.aspx.

[174] The date of the order is considered the effective date for the adopted Reliability Standards.

Under the MOU with NSPI, NSPI agrees to comply with NERC's Reliability Standards. NSPI also committed to review and provide recommendations on the adoption of Reliability Standards in the province to NSUARB.

Data Sharing

The MOU states that NSPI will provide NPCC all information respecting reporting requirements in the CMEP for NERC Reliability Standards.

Under the MOU, NERC has agreed to share relevant information on issues related to reliability compliance with the NSUARB. Examples of such information include:

(1) Compliance audits and spot checks;

(2) Readiness evaluations;

(3) Disturbance reports;

(4) Reliability assessments and benchmarking information; and

(5) Reports by regional reliability organizations, where applicable.[175]

There is also a data sharing requirement relevant to the Reliability Standards process. The MOU with NSUARB calls for NERC to submit all NERC Board of Trustees-approved Reliability Standards to the NSUARB. NERC also agreed to notify NSUARB immediately if a Reliability Standard has been remanded in another jurisdiction.

Compliance

Compliance is mandatory in Nova Scotia. NPCC is designated to perform compliance and enforcement activities in Nova Scotia upon NPSI, the only entity subject to the NERC Reliabiltiy Standards in Nova Scotia. The NSUARB retains the ultimate authority to determine whether a violation occurred. Penalties are not permitted in Nova Scotia.

Ontario

Reliability Standards

The Ontario Minister of Energy is responsible for the legislation that governs the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO) and for energy and electricity policy in the province. The IESO of Ontario is a not-for-profit corporate entity

[175] *See* MOU between the NSUARB and NERC at pp. 2-3.

established under the *[Ontario] Electricity Act, 1998,*[176] and is subject to the oversight authority of the OEB. The OEB is responsible for regulating the electricity sector, and it has the legislative authority to stay or revoke the operation of a reliability standard in Ontario and refer it back to NERC or NPCC for further consideration.

On October 25, 2006, the OEB and NERC signed an MOU[177] setting forth the mutual understanding of each party's responsibilities with respect to reliability in the Province of Ontario. The MOU states that Ontario's legislative framework does not expressly contemplate approval of NERC Reliability Standards, By-laws or Rules of Procedure. The MOU recognizes that, under the Ontario Electricity Act, one of the IESO's objectives is to participate in the development of standards relating to the transmission system and to enforce those standards. The MOU confirms that NERC Reliability Standards are referenced generically in the Market Rules written and administered by the IESO, and they are considered in effect in Ontario upon expiration of the remand period. On November 28, 2006, the Ontario Ministry of Energy formally recognized NERC as the entity named as a "standards authority" in the *Electricity Act, 1998*. Subsequently, in 2008, the *Electricity Act, 1998* was amended, allowing for NPCC to be recognized as a standards authority.

An MOU between the IESO, NPCC, and NERC was signed on November 29, 2006 and amended on February 5, 2010. This MOU documents the roles of the parties in conformance with the Ontario reliability framework and commits the IESO to carry out a compliance enforcement program for Ontario entities. The MOU also acknowledges that the NERC Rules of Procedure have effect in Ontario, provided they do not conflict with the established reliability and compliance framework in Ontario. The amended MOU includes provisions for investigations, organization registration, and NERC certification.[178] The IESO is subject to NERC's CMEP processes in accordance with the MOU. Monitoring and enforcement activities for IESO, with the exception of financial sanctions, are performed by NPCC. The parties contemplate revising this MOU in 2019.

Ontario has a process which provides for market participants, the IESO, or the OEB itself to initiate a review that could result in a standard being remanded or revoked for application in the province. Only Reliability Standards approved by the NERC Board of Trustees on or after May 14, 2008 are subject to this process.

Ontario was the first jurisdiction in North America to adopt NERC Reliability Standards as mandatory and enforceable. Until July 2011, a NERC Reliability Standard became effective on the date specified by the NERC Board of Trustees when it approved the standard. Because of the uncertainties in the timing of FERC approvals, a standard typically came into effect earlier in Ontario than in adjoining U.S. jurisdictions. An Ontario Market Rule amendment effective July

[176] Ontario's *Electricity Act, 1998* is available at: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_98e15_e.htm.

[177] Both the 2006 MOU and the 2010 MOU described in the following paragraph are available at: http://www.nerc.com/filingsorders/ca/pages/canadian-mous.aspx.

[178] In general, such NERC compliance processes do not involve direct participation by Ontario market participants.

8, 2011 addressed this mismatch. Under this Market Rule,[179] a NERC Reliability Standard will become effective when it is declared mandatory and enforceable in the U.S., unless the OEB remands the Reliability Standard or otherwise stays its enforceability. In addition, any Reliability Standard approved by the NERC Board of Trustees under NERC Rule 321 (i.e., a standard responsive to a regulatory directive that has not been approved by the NERC RBB) must be approved by IESO before it can comes into effect in Ontario.

To date, Ontario has neither remanded nor modified any NERC Reliability Standards. Information regarding Reliability Standards in Ontario can be found on the IESO's website.[180]

Data Sharing

Under the MOU, NERC will provide the OEB with information relevant to Ontario on issues related to compliance with NERC Reliability Standards, including reports on:

(1) Compliance audits and spot checks;

(2) Readiness audits;

(3) Disturbance reports;

(4) Reliability assessments and benchmarking information; and

(5) Reports by regional reliability organizations, where applicable.

The MOU also calls for NERC to inform the OEB of Reliability Standards approved by NERC and submitted to appropriate regulatory authorities, and to notify the OEB of NERC Reliability Standards that are remanded to NERC in any jurisdiction outside of Ontario. The MOU states that the IESO is the only Ontario entity directly accountable to NERC for its own compliance and will be accountable to NERC for compliance by all Ontario entities with NERC Reliability Standards.

In the MOU, there is also an undertaking that, subject to confidentiality requirements, the IESO will advise NERC of the functional responsibilities of Ontario entities.

The parties are contemplating updating the MOU in 2019.

[179] *See Market Rules for the Ontario Electricity Market*, ch. 5, Bulk Power System Reliability, available at: http://ieso-public.sharepoint.com/Documents/marketRules/mr_marketRules.pdf.

[180] *See* https://www.ieso.ca/imoweb/ircp/reliabilityStandards.asp.

Compliance

The MOU stipulates that the IESO is the only Ontario entity that is subject to oversight under NERC's CMEP by NPCC, with the additional caveat that the IESO is not subject to any financial sanctions.

Compliance enforcement within Ontario on the remainder of the Ontario electricity market participants is conducted by the IESO's Market Assessment and Compliance Division, which is "ring-fenced" from the rest of the organization. The IESO is subject to assessments of compliance with NERC Reliability Standards, including audits performed by NPCC. The completion of mitigation associated with noncompliance is overseen by NPCC as well.

On the remainder of Ontario market participats, the IESO carries out a compliance enforcement program and can issue a monetary order, finding, or remedial action with respect to a violation of a Reliability Standard in Ontario, subject to appeal to the OEB. The IESO has delegated enforcement accountability to the Market Assessment and Compliance Division, which exercises independent discretion in terms of enforcement decision-making.

The Market Assessment and Compliance Division establishes and executes procedures and programs for monitoring, investigating, and imposing sanctions, including financial penalties, against market participants and the IESO itself. The MOU acknowledges the Market Assessment and Compliance Division as the enforcement body in Ontario for Reliability Standards with full sanctioning powers as afforded under the Market Rules for breaches committed by the IESO and Ontario market participants.

In the event that a violation is confirmed under the Market Rules, the name of the responsible entity is made public. The Market Assessment and Compliance Division has the authority to levy sanctions for reliability violations. These sanctions may include financial penalties and are subject to appeal to the OEB. The Market Assessment and Compliance Division has established sanctions guidelines similar to those of NERC using severity/impact criteria. It has authority for "Extraordinary Financial Penalties" under certain circumstances to assess penalties of up to $1 million per occurrence. The OEB can impose administrative penalties of up to $20,000 per day.

Québec

Reliability Standards

The Régie de l'énergie du Québec (Régie) is an independent agency established under the *Act Respecting the Régie de L'Énergie* (Régie Act) to regulate the province's electricity and natural gas sectors. On December 8, 2006, NERC and the Régie signed an MOU that contemplated a future amendment to Québec's reliability legislation to grant the Régie the power to adopt and enforce NERC standards and allow for NERC funding and oversight in the province of Québec.[181] The MOU noted that §73.1 of the Régie Act provides that the "electric power carrier," or Hydro-

[183] Available at: http://www.qp.gov.sk.ca/documents/English/Statutes/Statutes/P19.pdf.

Québec, will establish reliability standards for its electric power transmission system and submit them to the Régie for approval. According to the MOU, the standards will become mandatory after approval by the Régie.

On December 13, 2006, Québec implemented *An Act Respecting the Implementation of the Québec Energy Strategy and Amending Various Legislative Provisions*,[182] which grants the Régie jurisdiction over a mandatory reliability standards framework in the Province of Québec. This act formalizes the ability of the Régie to approve reliability standards after reviewing an evaluation of the relevance and impact of the proposed standards. Under the act, the Régie may request that the Reliability Coordinator modify a standard or submit a new one. Further, the Reliability Coordinator must submit guidelines to the Régie describing criteria to be taken into account in determining sanctions for noncompliance with reliability standards and identify owners or operators that will be subject to the standards approved by the Régie.

Data Sharing

Under the MOU, NERC has agreed to share relevant information on issues related to reliability compliance with the Régie. The MOU further states NERC will be invited to participate in compliance audits and readiness evaluations done in Québec. Under the MOU, NERC and the Régie also agreed to discuss issues relating to: (i) Reliability Standard approval and remand; (ii) penalties for noncompliance with standards; and (iii) funding. For instance, NERC has agreed to notify the Régie when a new or modified standard is approved in the U.S. or remanded by any other jurisdiction outside of Québec. Additionally, although it is recognized that NERC cannot impose financial penalties for violations of Reliability Standards in Québec, NERC has agreed to inform the Régie of any violations and of the corresponding amount of penalties associated with such a violation in the United States.

Compliance

The regulatory structure in Québec is governed by Chapter R-6.01, an Act respecting the Régie de l'énergie (Régie), a May 8, 2009 MOU between NPCC, the Régie, and NERC, a September 24, 2014 MOU between NPCC, the Régie, and NERC, several Régie decisions, and a Québec specific CMEP (QCMEP). Based on these governing documents, NPCC performs compliance and enforcement activities in Québec on all Québec registered entities. The Régie retains the ultimate authority to determine whether a violation occurred. NERC and Québec are contemplating consolidating and updating the MOU and QCMEP agreements into a single agreement in 2019. Under the provincial regime, the Régie may impose, if appropriate, a sanction that may not exceed $500,000 per day and set a deadline for payment.

[183] Available at: http://www.qp.gov.sk.ca/documents/English/Statutes/Statutes/P19.pdf.

Saskatchewan

Reliability Standards

Pursuant to *The Power Corporation Act*,[183] Saskatchewan Power Corporation (SaskPower) has the authority to adopt, set, and administer standards for the planning, design, or operation of transmission lines, equipment, or other facilities within the Saskatchewan integrated regional power grid, and to maintain a membership in an integrated regional power organization. NERC, MRO, and SaskPower entered into an MOU that became effective on February 3, 2009 and was amended on January 15, 2012.[184] The MOU reflects the intent of Saskatchewan to support common North American BPS standards and to describe the protocols to achieve such a goal. For purposes of the MOU, NERC, and MRO are recognized to be Saskatchewan's electric Reliability Standard setting bodies.

In 2015, the parties amended the MOU to reflect SaskPower's Board of Directors creating Saskatchewan Electric Reliability Authority (SERA) which has the mandate to approve BES standards, to monitor and enforce compliance, and to report to the SaskPower Board of Directors on reliability management. It establishes SERA as the standard setting body as well as the monitoring, compliance and enforcement authority; however, SERA may use MRO, NERC or other resources in exercising its authority.

Reliability Standards approved by the NERC Board of Trustees are automatically adopted in Saskatchewan, unless one of the following two conditions applies. First, if a particular standard has been remanded by any jurisdiction, the Reliability Standard will not be applicable in Saskatchewan. Second, a Reliability Standard will not be applicable in Saskatchewan if is remanded, set aside, or a variance has been requested. Under the MOU, once the Reliability Standard is adopted, compliance with the standard is required in Saskatchewan.

Compliance

As mentioned above, SERA has the mandate to monitor and enforce compliance. SERA provides a report on its activities on an annual basis to SaskPower.

National Energy Board

Reliability Standards

NERC and the NEB signed an MOU in 2006. The MOU recognizes NERC as the ERO. In the MOU, NERC and the NEB commit to coordinate in the promotion of a reliable North American BPS.

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[183] Available at: http://www.qp.gov.sk.ca/documents/English/Statutes/Statutes/P19.pdf.

[184] NERC-Canadian MOUs are available at: http://www.nerc.com/filingsorders/ca/pages/canadian-mous.aspx.

The NEB regulates the construction and operation of international power lines in accordance with, among other things, the *National Energy Board Act* and the *National Energy Board Electricity Regulations*.[185] The NEB has authority under its legislative framework to take certain enforcement measures in the case of noncompliance to the conditions of a permit or a certificate that was issued for an international power line.

NEB's *General Order MO-036-2012 for Electricity Reliability Standards* and five amending orders for Electricity Reliability Standards in December 2012 (NEB General Order) gave NEB the authority to make Reliability Standards mandatory and enforceable on international power lines.[186]

Data Sharing

NERC and the NEB have committed to exchange experience, information and data relating to the development and compliance with Reliability Standards as applicable to international power lines. The MOU commits NERC to informing and seeking input from the NEB on proposed changes to NERC's Bylaws or ROP. The MOU also commits NERC to inform the NEB when a SAR has been approved and assigned to a drafting team, and to notify NEB when a Reliability Standard is approved.

Under the MOU, NERC commits to notify the NEB at the stage of its development process where the Standards Committee approves a SAR and assigns it for development by a drafting team. The NEB agrees to inform NERC about any changes in its regulatory processes to allow formal approval of NERC Reliability Standards.

Compliance

Consistent with its approach to adopting standards, the NEB has not imposed its own additional compliance monitoring and enforcement regime. The NEB General Order requires international power line permit holders to provide the NEB with certain compliance information, based on the compliance program of the jurisdiction where the international power line is located. In 2012, legislation was passed to provide the NEB with authority to establish a system of Administrative Monetary Penalties (AMP) through regulations in order to promote compliance with the *National Energy Board Act*. The penalties can be up to $100,000 per day for violations levied on companies. Lesser amounts can be levied on individuals. The NEB's regulations on how the AMP would be applied came into force in mid-2013.

There currently is no specific provision that violations would be made public.

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[185] NEB maintains a list of acts and regulations that set forth its mandate, responsibilities, and powers at: http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/lstctsndrgltn-eng.html.

[186] The NEB General Order is available at: http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/rrggnmgpnb/lctrcty/lctrcty-eng.html.

Mexico

Baja California

Reliability Standards

In 2013 and 2014, Mexico enacted significant energy reforms that include restructuring of the Mexican electricity industry, increased opportunity for private investment and a competitive electricity market. With these reforms, the roles of several key players in Mexico have changed.

Comisión Reguladora de Energia (CRE) is the federal energy regulator in Mexico. On March 3, 2016, CRE commissioners approved Resolución RES/151/2016, containing the first Grid Code (Codiga de Red) under Mexico's 2013–2014 electricity reforms. Under these reforms, CRE has many new responsibilities and authorities, including establishing regulations for electric reliability and security. The Grid Code contains the criteria for "efficiency, quality, reliability, continuity, security, and sustainability of the National Electric System" in Mexico, and the initial version incorporates ten NERC Reliability Standards.

CRE is required to update the Grid Code. In June 2016, NERC and WECC conducted a workshop for Mexican subject matter experts to provide a comprehensive overview of NERC and WECC Reliability Standards in order to assist them in providing technical advice to CRE during the development of the second Grid Code. Pursuant to a membership operating agreement between WECC and CFE, WECC has been monitoring CFE's compliance with certain NERC Reliability Standards in the portion of CFE's system in Baja California Norte that is interconnected to California.

Data Sharing

Mexico signed two agreements signifying intent to cooperate with the United States on reliability and participate in the international ERO: a set of bilateral reliability principles between Mexican and U.S. energy officials; and a memorandum of understanding (MOU) between NERC, the Mexican Energy Regulatory Commission (CRE), and the Mexican electricity system and market operator (CENACE). The parties to the MOU agree to share information in furtherance of the activities spelled out in the MOU which include identifying risks related to critical infrastructure protection, assessing reliability performance and risks, and developing practices and tools for system events.

Compliance

WECC uses a compliance monitoring program to monitor and assess compliance with Mexico Reliability Standards applicable to Designated Entities,[187] consistent with the applicable law of Mexico and relevant agreements. If there is any conflict between the MOA and the CMP, the MOA prevails. WECC and Mexican counterparts are developing an agreement to supersede and replace the MOA under which WECC performs certain functions in Baja California Norte.

[187] "Designated Entities" are the Mexican equivalent of registered entities in the United States.

WECC does not have enforcement or registration/designation authority for CFE. WECC provides compliance monitoring, reviews mitigation plans and completed mitigation plans, and provides assessment recommendations with respect to alleged violations.